AN ANAYSIS OF SOCIALIZATION INCUBATORS IN SELECTED MILITARY COMMISSIONING INSTITUTIONS

by

Mark Ward

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AN ANAYSIS OF SOCIALIZATION INCUBATORS IN SELECTED MILITARY

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ABSTRACT:

This study attempts to uncover some of the key processes clan-like organizations

use to socialize their constituencies, especially newcomers. Newcomer indoctrination

and the practices associated with those processes are particularly critical components of

socialization.

This research effort investigated two organizational settings, the Corps of Cadets

at Texas A&M University and the Air Force Reserve Officer Training Corps at Southern

Illinois University at Carbondale. This study was accomplished by analyzing the

pamphlets and manuals that describe those settings as well as survey questionnaires that

attempted to assess organizational culture and membership values. Significantly, these

data reveal a heretofore unexplored constellation of socialization processes. Those tactics

dealing with the socialization of newcomers in clans are especially compelling,

What the data suggest is that a principle goal of clan-like organizations is

newcomer socialization. To accomplish this task, these types of organizations place new

recruits in a special division of their organization, the "socialization incubator." A

socialization incubator being, as this biological metaphor suggests, an artificial

environment created to foster conditions promoting maturity. In this incubator, new

recruits undergo a myriad of unique socialization processes, which acting in concert,

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intensify the enculturation of newcomers into the organization. The implications of the existence of a socialization incubator are compelling and a plea for further research is put forward.

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For Karen, Mark Junior, James, and John – with all my love.

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CHAPTER 1

INTRODUCTION

Overview

A text points out that "organizations constitute ... a dominant influence in our lives" (Banner and Gagné, 1995: xiii). One of the most salient, and interesting, aspects of how organizations attempt to "influence our lives" is the myriad ways in which they attempt to socialize their membership. This study attempts to uncover some of the key processes organizations use to socialize their constituencies, especially newcomers.

Newcomer indoctrination and the practices associated with those processes are particularly critical components of socialization. In an effort to uncover and categorize these tactics, this research effort will investigate organizational settings by analyzing the pamphlets and manuals that describe those settings as well as survey questionnaires that attempt to assess organizational culture and membership values. From these data, a theory will be developed about the processes, or perhaps more importantly the interaction of these processes, and how they influence the socialization of newcomers in organizations.

What is particularly compelling about these tactics is that they provide a unique, and heretofore unexplored, perspective on the socialization methods employed by certain organizations. These tactics will be examined individually (for clarity's sake), but ultimately they will be choreographed simultaneously to reveal an organizational ballet designed to magnify and focus the newcomer indoctrination process. In one sense, the organizational environment these tactics create could be viewed as a "socialization

incubator." A socialization incubator is, as this biological metaphor suggests, an artificial environment created to foster conditions that promote (organizational) maturity.

What types of organizations are examined? That is, how might the organizations of interest in this study be classified? One of the organizations, the Corps of Cadets at Texas A&M University, has been described as a clan (Van Fleet and Yukl, 1986). Clans can aptly be portrayed as a group of people brought together by a shared interest or quest. Members of clans are thought to have relatively similar values and beliefs and place great emphasis on tradition (Ouchi, 1980). Clans typically feature little or no discernable hierarchy, few rules, and easy communication between members (Zablocki, 1971). However, the most salient aspect of clans, at least with respect to this study, is they tend to engage in intense socialization processes characterized by newcomer isolation. The purpose of these socialization methods is to make members believe that achieving organizational goals is worthwhile and is in their (members') long-term best interests (Wilkins and Ouchi, 1983). A more controversial view is that certain extreme organizational socialization environments (e.g., prisons) significantly alter individual beliefs and attitudes (Wheeler, 1971), although some studies refute this thesis (Gibson, Ivancevich, and Donnelly, 1991). Notwithstanding these criticisms, if the assertion is true, individual and organizational values become congruent, or nearly so, during the implementation of these socialization tactics. In either case, if these socialization processes are successful, members simultaneously pursue their own interests and the interests of their organization. Despite the obvious efficacy these socialization processes generate (e.g., loyalty), they are difficult, time consuming, and expensive to implement and maintain. Nevertheless, when extra-organizational environmental conditions feature

uncertainty, unpredictably, and rapidly changing circumstances, organizational constituents who are socialized in clans often prove to be effective at achieving their organizations' aims (Wilkins and Ouchi, 1983).

The other organization of interest is the Southern Illinois University at Carbondale (SIUC) Air Force Reserve Officer Training Corps (AFROTC) detachment, which appears to have the characteristics of a market organization (Coumbe and Harford, 1996). Unlike clans, market-oriented organizations rely on monetary incentives to ensure efficient member performance. A contract is made between a person and an organization when an exchange is agreed upon by both parties. In this particular case, that exchange is one in which an individual barters his or her services for monetary and/or other pecuniary benefits. Imbedded in these contracts are implied rules that govern the exchange in a rational and orderly way (Ouchi, 1980). Of particular importance to this study is the notion that when extra-organizational environmental conditions are known, predictable, and stable (i.e., market-like conditions), intensive newcomer socialization processes are unnecessary and prove to be a waste of precious organizational resources (Wilkins and Ouchi, 1983).

Background

In the Corps of Cadets, new recruits undergo conversion processes designed to make them believe that accomplishing this organization's mission is worthwhile and is in their long-term best interests. At the end of their first year of training and indoctrination, these cadets are "fully" socialized into the profession of arms. Many scholars maintain that these socialization processes are ostensibly why these particular institutions exist (Baucom, 1990; Van Fleet and Yukl, 1986; Keegan, 1976). Indeed, cadets remaining

time in the Corps of Cadets is not inconsequential, but in relation to the initial period in which these socialization processes take place, it pales in comparison.

Newcomer isolation is not a unique concept to the Corps of Cadets or even modern military academies in general. As early as the seventh century B.C., Sparta had perfected a military education system, adapted from primitive warrior tribes, that involved removing young boys from Spartan society and placing them in special training groups (separated by age) called "herds." These herds (listed by seniority, most junior first: rhobidai, mikichizomenoi, propaides, paides, melleirenes, and eirenes) conducted athletic and military training and developed esprit de corps by singing traditional songs and reading poems exalting a heroic-leader ethos. As the modern-day Corps of Cadets, Spartan herds lived in dormitories, which isolated them from the rest of society, under the control of the most senior of the year groups (Jones, 1993: 34-35).

Of course, not all organizations strive to isolate their newcomers. For example, many market-oriented concerns find it unnecessarily burdensome to incur the costs associated with isolating their membership from the environment. Instead of instituting processes that attempt to make members believe that achieving their organizations' goals is worthwhile and is in their (members') long-term best interests, these organizations find it more expedient to cater to the individual needs of their membership in exchange for their labor and talents. Indeed, the primary focus of many market-driven concerns is on recruiting as opposed to indoctrination. In this sense, the rationale from which AFROTC operates is similar to many other private sector organizations: If money, benefits, and other pecuniary compensation competes favorably with corporate positions in the civilian

community, AFROTC will attract quality people to their organization and, ultimately, the Air Force.

Research Question and Hypothesis

A central research question revolves around the notion that clans socialize their members in a different way than market-oriented concerns. Again, clans attempt to make members believe that achieving their organizations' goals is worthwhile and is in their (members') long-term best interests. It is also possible that clans significantly alter individual beliefs and attitudes during these socialization processes. Both institutions in this study espouse a rather traditional military ethos that stresses dominance and loyalty and de-emphasizes flexibility and exposition (Stoner, Freeman, Gilbert, Jr., 1995; Gibson, Ivancevich, and Donnelly, 1991). If the Corps of Cadets is indeed a clan and SIUC AFROTC a market-oriented concern, members of the Corps of Cadets should place more emphasis on this traditional military ethos than members of SIUC AFROTC. It is also possible that members of the Corps of Cadets may personally hold values that are more in line with the traditional military ethos than their institutional complement. To wit, the following hypotheses are offered:

- 1. Members of the Corps of Cadets (clan) tend to be more supportive of organizations that espouse traditional military values than members of SIUC AFROTC (market).
- 2. Members of the Corps of Cadets (clan) tend to have personal values that are more similar to traditional military values than members of SIUC AFROTC (market).

Assuming that the data support one or both of these hypotheses, a further exploration of these processes is warranted and a more inductive approach will be undertaken from that point forward in the study. Special emphasis will be given to

newcomer isolation, both extra- and intra-organizationally, since it appears to be among the more significant distinctions between clans and market-oriented concerns.

Delimitations

One organizational model, the bureaucracy, is not examined in this study.

Organizations create bureaucracies when market conditions are characterized by ambiguity. That is, when the price of goods or services cannot be or is difficult to ascertain, a bureaucracy can overcome this limitation. Organizations accomplish this feat by establishing an "incomplete employment contract" wherein members receive wages in exchange for closely supervised activities designed to work around the limitations of an imperfect market (Wilkins and Ouchi, 1983: 470).

After examining these organizational archetypes, one notes that they represent a response to the degree of unpredictability in their extra-organizational environments.

Under conditions of certitude, organizations generally adopt a market-oriented approach to socialization. As conditions become more ambiguous, concerns often adopt a bureaucratic model. Under the most extreme conditions, organizations adopt the clan form of socialization. In this study, the two poles of this range are examined. Certainly, there are many shades of gray between these two extremes. To the extent that an organization (i.e., bureaucracy) differs from a market- or clan-oriented organization, the less applicable the theory developed in this study may well be.

Another potential problem has to do with the dilemma of self-selection bias. This bias takes place "when the members of the groups being studied are in groups, in part, because they differentially possess traits or characteristics extraneous to the research problem" (Kerlinger, 1986: 349). One possibility is that organizations (nominally clans)

change individuals' perceptions about what constitutes ideal organizational culture. It is possible that organizations change individuals' attitudes, habits, beliefs, etc. However, it is also possible that individuals choose to join an organization because of some premembership orientation. For example, people who choose to join the Corps of Cadets may naturally be predisposed to having a more favorable orientation towards traditional military values relative to cadets from SIUC AFROTC. This natural bias could confound an assertion that the Corps of Cadets "makes" people more supportive of the traditional military ethos. Fortunately, this potential pitfall does not apply to all analyses. Since comparisons between subgroups within each organization are relative to each other, all respondents (internal to the organization) should have a similar "bias."

Outline of the Study

<u>Literature Review</u>

The second chapter begins by describing the organizational settings of the two institutions examined in this study. These settings were researched by conducting interviews with cadets and military cadre assigned to the institutions, reading historical documents and books about these institutions, and studying official AFROTC detachment and senior military unit cadet guides, which provided information on subjects as diverse as organizational design and culture. Next, the role of socialization and the importance of the culture transfer process from organization to individual were explored. Special emphasis was given to the processes that influence newcomers in the clan-like organization's division where newcomers reside, labeled here as the "socialization incubator." The manner in which two of these tactics work in concert was especially salient: extra-organizational and intra-organizational isolation of new recruits.

Methodology

The next chapter develops the methodology used to further the understanding of the socialization processes in these organizations. Survey questionnaires were administered to assess organizational culture and membership values. From these data, a more refined discernment of how organizations influence newcomers was gained. Air Force cadets from the Corps of Cadets and SIUC AFROTC were asked questions to reveal their impressions of their organizations' cultures as well as their personal values. The Cultural Values Assessment Test (CVAT), the apparatus administered to these cadets, uses the Aggregate Values Profile (AVP) to determine what kind of values people attribute to an organization (how my organization is). The AVP also reveals what kind of values people believe should be extolled by an organization (how my organization should be). The Personal Values Profile (PVP) assesses the values held by individual members. By applying the discriminant analysis technique to the AVP data, it was possible to ascertain whether or not there were statistically significant differences between the individual perspectives of the Corps of Cadets and SIUC AFROTC with respect to what values their organizations should espouse. The same technique applied to the PVP data answered whether or not there were statistically significant differences between the values of the Corps of Cadets and SIUC AFROTC membership. Perhaps more importantly, discriminant analysis demonstrated whether or not there were meaningful differences between different factions in the same organization (e.g., between the socialization incubator and other divisions of the Corps of Cadets). When such subcultures did exist, a regression analysis was performed to further examine this relationship.

As useful a tool as it is, discriminant analysis is computationally limited in that it does not supply the rationale on why the data divide the organization into different factions (subcultures), only that it is possible to do so. What has been posited here is that if a socialization incubator actually exists in clans, it should be relatively more "mechanistic" than the rest of the clan. By creating a mechanistic/organic culture score using the AVP data, it was possible to plot and measure the differences between these organizational divisions. The combination of these statistical methods should give one a more accurate picture of the processes that take place in clan- and market-oriented organizations.

Results

The fourth chapter deals with the application of statistical methods to the data as outlined in the previous section. A discriminant analysis was performed on the AVP data to look for statistically significant differences between individual Corps of Cadets and SIUC AFROTC member responses with respect to the kinds of values that should be extolled by an organization. An identical procedure was then applied to the PVP data in an effort to detect any meaningful distinctions between the personal values of these organizations' members. Following this operation, a discriminant analysis was applied to the data to detect meaningful cultural and then personal value distinctions between subgroups in the Corps of Cadets AVP and PVP data. Similar tests were then applied to the SIUC AFROTC AVP and PVP data. After these discriminant analysis procedures were performed, a regression analysis was conducted on the Corps of Cadets AVP data followed by the PVP data. Once again, the same regression analysis method was applied to the SIUC AFROTC AVP and PVP data. The ensuing regression analysis allowed a

graphical display of these relationships by reducing the cultural parameters to one variable, which represented the mechanistic/organic dichotomy of these organizations' cultures. Both the Corps of Cadets and SIUC AFROTC AVP mechanistic/organic slopes were graphically juxtaposed against each other. Finally, a more robust method of calculating variations (beyond simple visual examination) between these mechanistic/organic functions was conducted by testing the slopes for statistically significant differences.

Conclusion

The final chapter discusses the findings and develops a theory about the socialization processes used by clan-like organizations. This theory is based on an assessment of the literature and the subsequent culture and personal values data analysis of the two organizations examined in this study. What the data suggest is the principle goal of clan-like organizations is newcomer socialization. To accomplish this task, these types of concerns place new recruits in a special division of their organization known as the socialization incubator.

CHAPTER 2

LITERATURE REVIEW

Introduction

One of the most effective ways to study organizational socialization is to examine the "settings within which the socialization takes place" (Wheeler, 1971: 1005; Gewirtz, 1971: 92). In this particular study, two organizational "settings" were examined. Both were military commissioning institutions: a senior military university and clan-like organization, the Corps of Cadets at Texas A&M University, and an AFROTC detachment at SIUC that represented a market-oriented organization. A comparison and contrast of these distinctive settings provided greater insight into the socialization processes used to indoctrinate newcomers and the mechanisms that govern organizational socialization, especially those in clans.

In this chapter, a brief overview of Air Force commissioning institutions is presented to reveal how the two organizations of interest fit into the Department of Defense (DoD) officer production schema. A more in-depth treatment of senior military universities and AFROTC follows this overview. An important commonality in these institutions is the need to socialize cadets (e.g., "profession of arms")(Abrahamsson, 1972; Janowitz, 1974), but there are critical differences in the socialization processes that each organization adopts. After this brief but illuminating description of organizational socialization, an outline on how to research these processes is advanced. Various tactics used by clan-like organizations and market-oriented concerns to socialize newcomers are examined. Special emphasis is given to a heretofore unexplored but nonetheless important combination of processes used by clans to isolate newcomers from the tenured

members of the organization and the extra-organizational environment. This exploration of organizational newcomer isolation in clans, labeled as the "socialization incubator," is followed by a methodology proposal to further understanding of this phenomenon.

USAF Commissioning Institutes

Currently, the Air Force obtains officers from four sources: Direct commission, United States Air Force Officer Training School (OTS), designated senior military universities (i.e., The Citadel; established 1842, Corps of Cadets at Texas A&M University; established 1876, United States Air Force Academy (USAFA); established 1954, Virginia Military Institute (VMI); established 1839, and Virginia Polytechnic Institute and State University; established 1872), and AFROTC. Each will be briefly examined in turn, and a more in-depth description of the specific institutions being explored in this study will follow (Corps of Cadets at Texas A&M University, representing a senior military university and SIUC AFROTC, a typical Midwestern AFROTC detachment).

Direct Commission

One method for producing officers involves a direct commission in which a person becomes an officer with little or no formal military training. These types of commissions are reserved for certain highly-specialized professionals who occupy non-traditional military roles, such as the medical and legal corps for example. Since they ostensibly hold positions that are not "military" in nature, it is not incumbent upon the DoD to change their attitudes, habits, beliefs, etc. to be in line with the profession of arms. For this reason and given their unique, non-combat-related, mission in the military, they will not be discussed further in this study.

OTS

A second commissioning method involves attending a brief period of intense military instruction after graduating with a four-year college degree from a civilian institution. The mission of OTS is to provide "the basic knowledge and skills required of newly commissioned officers" (Napier III, 1989: 223). In the Air Force, a 13-and-a-half-week program is used for this purpose. During this period, cadets attend classes during the day to learn about the Air Force and officership. OTS cadets wear uniforms for the duration of their training. Further, intense physical conditioning is nearly a daily routine. OTS cadets are housed in military dormitories and eat in military dining facilities at Maxwell Air Force Base (AFB), Alabama. Also, OTS cadets are exposed to a rigid system of military discipline throughout the day. There are numerous military formations, drills, marches, and inspections (e.g., rooms, uniforms, and equipment).

Senior Military Universities

A third source for producing officers are Congressionally-designated senior military universities. Of particular interest to this research are those schools associated with the USAF. The USAFA, which was established in 1954, is the newest of all the major senior military universities, and is also the Air Force's service academy. Also recall that there are four non-academy senior military universities that produce Air Force officers: The Citadel, Corps of Cadets at Texas A&M University, VMI, and Virginia Polytechnic Institute and State University.

Currently, students in senior military universities in the United States attend classes during the day as ordinary students at civilian institutions do. However, unlike civilian students, cadets must wear uniforms throughout the day. Typically, cadets also

eat in military dining facilities and sleep in military barracks-like dormitories on campus. Intense physical conditioning is a normal part of their daily routine. It is also common for cadets to be exposed to a system of rigid military discipline throughout the day when not in class. There are also numerous military formations, drills, marches, and inspections (e.g., rooms, uniforms, and equipment). Further, cadets are usually required to memorize significant military events and customs and courtesies (sometimes referred to as "compulsory knowledge"). Cadets enrolled in these institutions have almost all of their time accounted for. Senior military universities are four years in length.

Corps of Cadets at Texas A&M University

David D. Van Fleet and Gary A. Yukl, authors of several monographs on organizational behavior in military institutions, describe the Corps of Cadets as more like a service academy than a conventional ROTC program. Corps members are organized into military units; during the school week, they wear prescribed uniforms at all times while on campus; and they participate in frequent drills, formations, and military ceremonies in addition to coursework in military studies for many of the members (1986: 49).

In recent years, the Corps of Cadets has had an average population of about 2,200 cadets. Of those, 800 are in the Wing (the Air Force component of the Corps of Cadets), approximately 400 of which are officially enrolled in an Air Force commissioning program. The Corps of Cadets is well over a century old. Over one hundred former students have become general officers, and eight former students have won the Congressional Medal of Honor. Several former cadets have become captains of industry (Chairman of the Board of Republic Airlines) and leaders in government (former Mayor

of San Antonio and Secretary of Housing and Urban Development and a former Secretary of the Air Force) and education (Dean of Harvard's Graduate School of Business)(Van Fleet and Yukl, 1986: 49).

The Corps of Cadets physically resides on the South side of the Texas A&M campus known as the Quadrangle or, more simply, "Quad." Cadets live in 10 rectangle-shaped dormitories, which were built in 1939 and extensively renovated between 1989 and 1990. (The Quad actually contains twelve dormitories. Two dormitories on the Southeast side of and near the main entrance to the Quad, Spence and Briggs Residence Halls, house civilian students (female) enrolled at the university. The remaining ten dormitories are occupied by members (both male and female) of the Corps.) Each of the dormitories' four floors contains 32 rooms and two community bathrooms, and each 13' by 15' room normally houses two cadets. The Adams Band Hall, where members of the Aggie Band (all band members are also members of the Corps) practice, is also located on the West side of the Quad. Located just North of the Quad is the Sam Houston Sanders Corps of Cadets Center. Built in the early 1990s, the Center houses a library, office space, conference rooms, and a museum.

Each cadet rooms with another cadet who is not only the same classification (and sex) as he or she is (i.e., freshmen, sophomore, etc.) but also from the same military company-sized unit (about 50 cadets). All cadets eat meals at the military dining facility, Duncan Dining Hall, located on the West side of the Quad. Civilian students are usually not permitted in Duncan Dining Hall or the Corps dormitories during the week, but they have limited assess during the weekend and on special occasions. All cadets are restricted to the campus and surrounding area and must receive special permission to

leave the university when school is in session. Cadets are forbidden from fraternizing with cadets of "unequal status" (e.g., freshmen with sophomores) and even dating between cadets of equal status is extremely discouraged.

AFROTC

The fourth and by far the largest source for obtaining officers is through the ROTC program, created by the National Defense Act of 1916. ROTC detachments specializing in air power were established in 1920 (USAF, 1999b). The National Security Act of September 18, 1947, established the Air Force as a separate entity apart from the Army and Navy (USAF, 1995). Subsequently, AFROTC proper was created by then General Dwight D. Eisenhower when he signed General Order 124, which created 78 detachments at universities and colleges throughout the United States in the late 1940s (USAF, 1999b). Since January 1997, about 44% of all line officers (line officers serve in combat-related roles) in the Air Force have come from AFROTC, which is more than twice as many officers compared to any other single commissioning source (USAF, 1999a). AFROTC detachments are currently placed at 144 civilian institutions of higher education, providing training to civilian students who desire a commission in the Air Force.

With few exceptions, AFROTC cadets are treated and act as civilian students. On average, AFROTC cadets wear a uniform once a week. There is usually one scheduled meeting in addition to classroom instruction each week, a two-hour "leadership lab" that consists of "learning and fun, enjoying such activities as drill and ceremonies, group leadership projects, sports, team building, physical fitness, and spirit" (AFROTC 115, 1999). Freshmen and sophomore cadets attend a one-semester-hour class once a week to

learn about the Air Force. Juniors and seniors attend a three-semester-hour class three times a week in a scholarly effort to further increase their knowledge about the Air Force and officership. During this four year period, AFROTC cadets attend a four-week-long course of instruction (usually between their sophomore and junior years) at an AFB (known as "Field Training"). Also, AFROTC cadets have the option of foregoing any training their freshmen and sophomore years, and can join the AFROTC program as late as their junior year provided they attend a special six-week course of instruction at an AFB before they enroll in AFROTC (an extended version of Field Training). Except for the once-a-week formation and uniform wear, students are free to come and go from campus as they choose just as all other civilian students do. (It is important to note that cadets in senior military universities take AFROTC classes as a prerequisite to commissioning.)

AFROTC at SIUC

AFROTC has existed at SIUC since 1953. SIUC's program is nearly identical to the model AFROTC program previously amplified. In recent years, the organization has averaged about 100 cadets in size. Many former cadets who graduated from SIUC have done well in both the public and private sectors. The detachment has produced five officers who have attained the rank of general officer.

The AFROTC detachment at SIUC maintains two buildings on the East side of the campus. One building houses the military faculty and administrators who instruct and process cadets. Class instruction also takes place in this building. The other building is used by cadets to hold meetings (e.g., preparation for leadership lab).

Again, when not in uniform or involved in AFROTC activities, cadets are ostensibly civilian students. Indeed, the idea that AFROTC is not a personally "invasive" or time-consuming activity is a popular recruitment tool used by this commissioning program. Consider, for example, many AFROTC detachments tout in their detachment guides (which are officially approved Air Force manuals governing the behavior of cadets) that cadets rarely wear a uniform. One detachment even allows cadets to wear the detachment's "official" cadet tee-shirt in lieu of the uniform (AFROTC 505, 1999).

Detachment guides also point out that "short haircuts" (male cadets must cut their hair) are in vogue, reducing the distinction between cadets and civilian students. Perhaps more importantly, detachments strongly emphasize that AFROTC does not interfere with civilian university activities (e.g., fraternities and sororities)(AFROTC 5, 1999; AFROTC 25, 1999; AFROTC 505, 1999).

As with other detachments, AFROTC cadets at SIUC reside in civilian dorms, apartments, or homes with whomever they choose. They eat where and when they want and with whom they want. Cadets are free to leave the campus at any time and for any reason. Except in those rare instances when cadets are in a "military environment" (e.g., leadership lab), military decorum is not observed. Cadets of unequal status in AFROTC are allowed to fraternize with each other when not involved in AFROTC activities, which is, again, normal protocol for most detachments (AFROTC 158, 1999; AFROTC 810, 1999). Indeed, some cadets are even married to each other (two couples -- four cadets -- at SIUC in 1998, for example).

Socialization and the Transmission of Culture

From this examination of these organizational settings, an important distinction can be made between these two institutions. The Corps of Cadets advances a clearly articulated and rather monolithic vision of what type of culture a cadet should be immersed in whereas SIUC AFROTC promotes a more multicultural perspective advocating diversity of attitudes, habits, beliefs, etc. The Corps of Cadets model resembles other senior military universities and enlisted basic training philosophies with respect to socialization. Thomas E. Ricks points out, for example, that "Marine Corps basic training is more a matter of cultural indoctrination than of teaching soldiering, which comes later, at combat training or, for the real grunts, at infantry school" (1997: 37). Similarly, the Corps of Cadets subscribes to the admonition that Air Force commissioning institutions "produce leaders for the Air Force" (USAF, 1999b: 1), foregoing all military technical training until the all-important socialization process has successfully imprinted newly minted second lieutenants with the "profession of arms." The primary focus of this socialization process involves the study and inculcation of "ethical rules (gentlemanly behavior, codes for proper behavior in uniform, various rules for paying respect to colleagues and superiors, etc.)." These institutions hope to achieve this goal by fostering the "internalization of certain values, outlooks, and behavior elements" (i.e., socialization) into their cadets (Abrahamsson, 1972: 17, 38).

What is meant by "socialization" in this study? First, it is important to note that socialization is a process. It is a process where humans learn to be "human" by interacting with others in society and by observing and acquiring the characteristics of the culture in that society (Scarr and Vander Zanden, 1987). Even more germane to this research is the role of organizational socialization wherein a person learns to value the

culture of an organization, giving that individual the ability to take on an organizational role and meaningfully participate in that concern. Most organizations, to one degree or another, attempt to socialize their members by modifying their perspectives and aspirations to be more congruent with the culture of the organization. Given the benefits of cultural indoctrination (e.g., increased member loyalty), it is perhaps not surprising that this socialization process is often a purposeful activity in organizations, as is the case with these commissioning institutions.

In one sense, socialization acts as a conduit that facilitates the transmission of culture from a society, organization, group, or individual to another society, organization, group or individual. In general, culture can be thought of as the "complex mixture of assumptions, behaviors, stories, myths, metaphors, and other ideas that fit together to define what it means to be a member of a particular society" (Stoner, Freeman, and Gilbert, Jr., 1995: G-2). More specifically, Howard Becker and Blanche Geer, both sociologists, describe organizational culture in this way:

Any social group, to the extent it is a distinctive unit, will have to some degree a culture differing from that of other groups, a somewhat different set of common understandings around which action is organized, and these differences will find expression in a language whose nuances are peculiar to that group (1970: 134).

Cultures reside inside, or are "nested" inside, other cultures (e.g., an organization's culture is nested inside the culture of its nation). The highest, or broadest, level of influence is the "civilization" tier, as when one refers to Western culture for example. The "nation" is the next level in the hierarchy, recognizing that the United States, for instance, has a discernable culture. Within nations, "ethnic" groups can be

found. At an even finer level one can discern an organizational culture (Schein, 1996). Of course, numerous "group" cultures (e.g., subcultures) can even exist within an organization (Louis, 1985). What is particularly interesting about the organizational cultures in this research is that the socialization process is not just a means to success, it is the ends to success. That is, whereas most concerns attempt to use socialization to enhance their ability to achieve their aims (e.g., building loyalty through goal congruence; Gibson, Ivancevich, and Donnelly, 1991), the overarching goal of organizations being examined here is socialization itself.

Although both commissioning institutions in this study have as their primary goal "socialization," they take a dramatically different approach to the process. Consider, cadets enrolled in SIUC AFROTC do not eat, live, or socialize as an organization on a daily or even weekly basis. They are nominally civilian students who participate in campus-wide social activities (just as other civilian students do) unrelated to AFROTC. Perhaps more telling is that in response to the most "Frequently Asked Questions About AFROTC," the program insists that "entry level officers are equivalent to junior executives" with comparable pay and perks. AFROTC also sells itself by pointing out that cadets seldom wear uniforms, don't live in military dormitories, and will be more marketable to civilian corporations because of their military experience (AFROTC 25, 1999). Again, from the viewpoint that the Air Force is a business enterprise similar to other corporations, AFROTC makes the claim that "working hours for most officers are similar to those for civilian industry" (AFROTC 340, 1999). From this perspective, AFROTC takes a market-oriented approach to organizational orientation, wherein "[c]ontracts are made between parties who, because of competition, will offer a "fair"

price and fulfill their commitments lest competitors usurp their business" (Wilkins and Ouchi, 1983: 470). As with many civilian organizations, socialization is not a directed activity in AFROTC per se, and cadets have almost as diverse a perspective as one finds at any civilian university. As one cadet guide points out, "[1]ife as an AFROTC cadet is not a 24 hour military training environment that many people expect. In fact, one of the greatest attributes of the ROTC program is the focus placed on the fact that cadets are also college students, with grades to make and an outside life to maintain" (AFROTC 105, 1999). Indeed, when speaking of retired General Colin Powell's successes (General Powell was an Army ROTC commissionee), retired Army General Mike Lynch maintains that the best officers are ROTC graduates because they "learn to use the values of the society itself as a basis for [their] conduct on the battlefield" (Means, 1992: 98).

A senior military university (e.g., Corps of Cadets), what Erving Goffman refers to as a "total institution," takes a different approach to socialization by very nearly totally isolating its members from the extra-organizational environment. For example, Goffman maintains that one of the principle characteristics of a total institution is "all aspects of life are conducted in same place and under the same single authority" (1961: 314). In the Corps of Cadets, all cadets eat, live, and socialize inside the confines of the Quad. The authority to command them is unambiguous, and the chain of command is easily discernable -- from the highest ranking senior to the lowest ranking freshman.

Goffman's second attribute of total institutions is also instructive. Note that "each phase of the member's daily activity will be carried out in the immediate company of a large batch of others, all of whom are treated alike and required to do the same thing together" (1961: 314). Again, this description of organizational activity aptly describes

the Corps of Cadets. Large numbers of cadets gather together several times a day to participate in close-order drill and exercises. Cadets who participate in these military exercises are treated so much alike that it is fair to say they even lose their individual identities. Consider, while in these formations carrying out marching orders, cadets are charged with performing movements that are identical to each other, which may be the most extreme version of doing "the same things together." Contrast this activity to the daily life of cadets in SIUC AFROTC, who, again, are in the main civilian students.

True, cadets in AFROTC follow the same regimented procedures in military formations, but they do not drill on a daily or weekly basis. Indeed, one cadet guide points out that cadets only practice drill about 10 hours a semester (AFROTC 640, 1999), and the point here is that Goffman stresses not only routinized activity but also that it occurs on a daily basis.

With respect to routinized activity, it is perhaps not surprising that daily formations in the Corps of Cadets follow a highly regimented schedule that is created at the top of the organizational hierarchy and disseminated to subordinate units. Once more, this aspect of organizational life in the Corps of Cadets is also a fundamental characteristic of total institutions:

[A]ll phases of the day's activities are tightly scheduled, with one activity leading at a prearranged time into the next, the whole circle of activities being imposed from above through a system of explicit rulings and a body of officials (Goffman, 1961: 314).

When SIUC AFROTC schedules a military formation, it is created and disseminated in much the same way as it is in the Corps of Cadets. Again, however, military formations

do not even occur on weekly basis in AFROTC, and Goffman stresses the frequently reoccurring (i.e., daily) nature of total institutions.

These descriptions of the different approaches to socialization have utility. It illustrates that SIUC AFROTC (and indeed all AFROTC detachments) uses a market-oriented approach with respect to organizational orientation. Further, since AFROTC cadets are treated and act as civilian students, they are socialized in much the same way as civilian students. Not surprisingly, this diversity of values (reflecting the mainstream orientation of society) found in officers who are commissioned from AFROTC is listed as a principle strength of the program by Colonel Wolfgang E. K. Gesch, Commander of the Air Force Reserve Officer Training Corps (AFROTC 157, 1999). In stark contrast to this approach, senior military universities are "total institutions" that use a clan-like approach to socialize their members, isolating cadets from the extra-organizational environment while they undergo an intense period of indoctrination.

Toward an Alternate Theory of Socialization: Redux

As instructive as Goffman et al.'s approach to socialization is, it is primarily illustrative. This issue is especially salient to this study in that in order to gain an understanding of important socialization goals of military concerns, such as commitment for example, one must examine "organizational context and processes, as opposed to a static view of the [military] organization ..." (Cotton, 1991: 49).

John Van Maanen and Edgar H. Schein (1979) point out that organizations use, some more consciously than others, different processes to socialize newcomers. These methods or "tactics" are critical because they orient the way in which recruits approach their roles in an organization. What is needed to understand the socialization processes in

these commissioning institutions is an overview of these tactics, with a special emphasis on those processes that have been largely ignored in previous research and their special relationship to the study of clans and market-driven concerns.

An oft-cited option available to organizations is the decision on whether or not to socialize newcomers collectively or as individuals. As the phrase implies, collective socialization is one in which the entire group of newcomers is socialized as a group, as one would find in military boot camp or senior military university for example. The alternative option, individual socialization, involves processing new members as individuals, in isolation from other newcomers. As Wheeler (1971) points out, this dichotomy can be illuminated if one simply notes that it is akin to product structures in the manufacturing process. That is, collective socialization is similar to a production concept characterized by high volume, high standardization, and production in lots. On the other hand, individual socialization is more analogous to a low volume, lowstandardization, and "one-of-a-kind" manufacturing process (Chase and Aquilano, 1989). This concept of standardization is an especially apt parallel to the manufacturing community because a major goal of group socialization is a "standardized" consciousness, forming a strong consensus among newcomers as to the roles they should adopt in the organization (Becker, 1970). As previously noted, freshmen in the Corps of Cadets endure what is in essence nine months of military basic training (as do all freshmen in senior military universities), and the "product" is the epitome of collective socialization. Strikingly different from the Corps of Cadets, is the individualistic socialization approach adopted by SIUC AFROTC. Recall that, besides the fifty-minute classroom instruction period and the two-hour leadership lab held each week, cadets in

AFROTC are nominally civilian students. By design, AFROTC cadets are socialized as individuals, adopting whatever values of whatever university culture (e.g., fraternity) they happen to be immersed in.

Another important decision organizations must make is whether or not to isolate newcomers from the rest of the organization during the orientation period. In a formal socialization scheme, for instance, newcomers are isolated from the rest of the organization during the initiation process. Organizations adopt formal socialization methods when there is a need for newcomers to assume attitudes and values that are congruent with the organizational ideal, unfettered by more tenured members who may stress a slightly different vision (Van Maanen and Schein, 1979). Marine Corps basic training is a good example of this type of process in that "[b]efore they [Marine recruits] can learn to fight, they must learn to be Marines" (Ricks, 1997: 37). Conversely, new members who are enrolled in an informal socialization process are not distinguished from other, more senior, members of an organization.

Freshmen in the Corps of Cadets are highly segregated from the rest of the Corps, and this isolation can be found along a number of dimensions. For example, freshmen are physically constrained from interacting with their more senior classmates (e.g., freshmen are only allowed to room with other freshmen in Corps' dormitories). Also significant is the notion that all freshmen perform the same role within the organization, which is, namely, that of a recruit. As a result, freshmen are restricted to the lowest echelons of the organization, prohibited from holding positions of responsibility. Socially, freshmen are restricted in the manner in which they can interact with upperclassmen (e.g., freshmen must address upperclassmen by their last names and vice

versa). This isolation is even promulgated by the number and types of responses freshmen are allowed to give to upperclassmen' queries: Yes sir, no sir, and a long memorized diatribe repeated by all freshmen when asking for forgiveness when they fail to give the correct response (that is, "yes sir" or "no sir"). In SIUC AFROTC, on the other hand, newcomers blend seamlessly into the organization. Indeed, neophyte SIUC AFROTC cadets are not restricted from holding important positions in the detachment, and it is not unheard of for newcomers to be made cadet officers on the Wing Staff (the highest echelon of the organization) during their first semester of enrollment in the program. In light of this fact, it is perhaps not surprising then that the relationship between recruits and upperclassmen is a cordial one in which more senior cadets are encouraged to befriend and guide newcomers (AFROTC 585, 1999).

Regardless of the degree of newcomer isolation, if an organization adopts a sequential socialization process, newcomers pass through a series of identifiable steps and boundaries from "outsider" (newcomer) to "insider." Conversely, the random step socialization process operates on the assumption that the steps and boundaries between outsider and insider cannot be sequenced, are hard to define, are constantly changing, or any combination of these three variables. A freshman cadet in the Corps of Cadets goes through a number of important transitional phases that are punctuated by significant, almost tribal-like, rituals. One of the most important of these rites of passage common to almost all military schools is a celebration held at the end of the year in which freshmen are matriculated into the sophomore class. In the Corps of Cadets, for example, freshmen who successfully complete the nine months of training and indoctrination, earn the privilege of donning the distinctive uniform of the sophomore class for the first time and

pass in review in a military parade (known as Final Review). It is also during this event that freshmen "drop handles" with upperclassmen, which allows them to refer to upperclassmen by their first names and vice versa. Indeed, Final Review is nominally when freshmen become "insiders" in this organization. In contrast to this process, recall that in SIUC AFROTC cadets are socialized as individuals. Since each cadet's socialization experience is unique, it is, by definition, a random process that lacks discernable steps and meaningful boundaries.

Closely associated with the idea of sequencing is the notion of a fixed and variable socialization process, which simply refers to the presence or absence of a timetable. Simply put, if a timetable exists with respect to the socialization process of newcomers, the indoctrination period is fixed. If no timetable exists, the process is variable. In the Corps of Cadets, the vast majority of the socialization milestones are fixed. For instance, Freshmen Orientation Week, a kind of mini-military basic training camp for freshmen, always ends when freshmen meet the sophomore class for the first time on the Sunday evening before classes begin. The awarding of Cadet Corps Insignia (commonly referred to as "Corps Brass"), a significant milestone in the freshmen' odyssey representing (freshmen) class unity, is almost always awarded in the third week in November. Final Review is always held shortly before graduation in May. In SIUC AFROTC, the socialization method is, once again, as unique as the individual processes being experienced by each cadet. As such, no timetable exists.

Another critical socialization option organizations must attend to is the adoption of a serial or disjunctive schema. In the serial socialization process, organizational insiders conduct the training of recruits and at the same time act as role models for

newcomers. In these concerns, roles are clearly delineated, and new members will eventually occupy the positions of more senior members. When role models are absent, the socialization process is disjunctive. This tactic is adopted when the roles people are to assume in an organization are unique or nearly unique to each individual. In the Corps of Cadets, for example, the vast majority of freshmen training and indoctrination is conducted by sophomore cadets. During this process, freshmen learn how to dress, speak, act, and even "feel" like sophomores. This particular practice is of paramount importance because freshmen will eventually become sophomores, who will then in turn guide the next freshmen class. On the other hand, SIUC AFROTC organizational insiders are not responsible for the processes that orient attitudes, behaviors, and values of newcomers. As a result, each SIUC AFROTC cadet brings a unique perspective to his or her role in the AFROTC detachment.

Yet another important socialization option organizations have at their disposal is whether to adopt an investiture or divestiture process. As one might expect, in an investiture socialization scheme, organizations tend to extol the individual characteristics of newcomers and promote the notion that these personal idiosyncrasies contribute to the viability of the organization. In a divestiture process, organizations attempt to strip away the individual identities of newcomers. In Marine Corps basic training, a divestiture example, new recruits are so far removed from their past identities, they are not even allowed to refer to themselves in the first person (Ricks, 1997: 40). As in the Marine Corps, individual identity in the freshmen class of the Corps of Cadets is virtually eliminated. All freshmen cadets wear identical uniforms. Male cadets have the same close-cropped hair. Each female cadet has virtually the same hairstyle as her female

peers. Cadets are motivated to walk, talk, and behave in the same fashion as well as refer to themselves in the third person. Conversely, individual peculiarities are lauded in AFROTC, an investiture socialization process, because it brings diversity to the organization, which, again, is a stated goal of the program (AFROTC 585, 1999).

An important but often overlooked socialization process involves the decision on whether or not an organization should isolate its newcomers from the extraorganizational environment during the socialization process. Perhaps one reason this particular process is not examined with regularity is because it is seldom a feasible option for many organizations, especially business enterprises (with some Japanese corporate cultures being a notable exception). To totally (or nearly so) isolate newcomers from the rest of the environment is fraught with many difficulties not the least of which are the expense associated with such a tactic and the negative moral implications (e.g., cult "brainwashing")(Wilkins and Ouchi, 1983; Janowitz, 1975). Nevertheless, clan-like organizations do manage to isolate or "close" their organizations from the rest of the environment, shielding their newcomers from outside influences that might dilute or dispute the values they are trying to instill into their newest members (O'Reilly and Chatman, 1996). Notably, the Corps of Cadets houses its cadets in "military barracks," and as Bengt Abrahamsson points out, the military dormitory is especially effective at isolating cadets from the "contagion of radical thought and from observing events threatening the status quo" (1972: 62). Other scholars (i.e., Wilkins and Ouchi, 1983; Berger and Luckmann, 1967) similarly maintain that isolation of organizational membership from elements that discredit "institutional alternatives" strengthen these clan-like organizations.

As the previous discussion illuminates, a reoccurring theme in clans is newcomer isolation, both from within and without the organization. In a cult, a special type of clan, individual members are even isolated from family and friends (Appel, 1983), a process sometimes referred to as encapsulation (O'Reilly and Chatman, 1996). Importantly, the cult membership, regardless of its tenure, must be continually isolated from the rest of environment in order for the cult to survive. However, this encapsulation process is not the same phenomenon as the closed socialization tactic that describes other clan-like organizations. What distinguishes a cult from other types of clans is the notion that a cult lacks external constituencies. Because of this lack of support, a cult must isolate itself in toto from the disruptive forces of the extra-organizational environment. Of course, as with many phenomenon, the difference between cults and other types of clans is a matter of degree. As the number of outside legitimizing groups that support a clan increase, the less necessary it is to isolate tenured members of that organization from the environment (Wilkins and Ouchi, 1983; Ouchi, 1981). For example, the Marine Corps has numerous visible extra-organizational constituencies that support their efforts (e.g., certain elected officials, veteran's organizations, families and friends). When such support is lacking, even "fully" socialized members can falter. (Even the legendary solidarity of the Nazi Wehrmacht suffered near the end of World War II when external support began to whither (Janowitz, 1948).) Indeed, groups that

reinforce the soldier's perception that society sincerely values his service and sacrifices also contribute strongly to soldier commitment. Societies that value soldiers reinforce the romanticism and manly honor often seen in the soldier's life by members of society, especially the youth (Henderson, 1990: 175).

When outside legitimizing groups exist, clan members can be indoctrinated to such an extent that they do not require close monitoring. How do organizations accomplish this feat? Alan L. Wilkins and William G. Ouchi point out that clan-like concerns have a unique governing mechanism in which membership self-interest is congruous with organizational goals. Because of this congruence, clans virtually eliminate the need to closely supervise their members' performance since they naturally seek to do what is in the best interest of the organization. If organizational members are apt to be immersed in an extra-organizational environment characterized by rapidly changing conditions in which ambiguity and unpredictability are the norms, clan newcomer socialization processes can be an especially effective tool (1983). When legitimizing extra-organizational groups exist, complete or near complete isolation of "fully" socialized members, as opposed to unsocialized newcomers, is counterintuitive to the idea that clans act as governing mechanisms that direct the behavior of clan members through socialization. Therefore, with the exception of certain types of clans (i.e., cults), most clan-like organizations can develop a membership capable of accomplishing organizational goals under even the most adverse environmental conditions.

An important issue needs to be addressed concerning the processes clans and market-oriented organizations employ to socialize their newcomers. Although to this point these tactics have been explored as if they operate independently from one another (for clarity's sake), in actuality these processes work in concert to socialize recruits (Janowitz, 1991). To proceed further, a more holistic approach must be taken. Of the various methods employed by clans mentioned here, the two most salient with respect to newcomer isolation involve the combination of formal and closed socialization tactics.

The purpose of this intense isolation is to magnify and focus the indoctrination process.

That is, freed from the distracting effects of internal dissonance (via the closed socialization tactic) and outside interference (via the formal socialization tactic), socializing agents maximize their ability to instill the values extolled by the organization into newcomers (see Figure 1). See Table 1 for a summary of these socialization processes.

Contrary to extant organizational theory, clan-like organizations seem to actually consist of two factions instead of one monolithic culture. Newcomers, the first group, are relegated to the socialization incubator. Once these recruits have inculcated the values and mores of the organization to a sufficient degree to act as autonomous agents adequately representing the clan's interests (i.e., "matured"), this group graduates to that of organizational insider, the second group. Insiders differ from newcomers in that they are

given broad responsibilities and autonomy, entrusted with "privileged" information, including informal networks, encouraged to represent the organization, and sought out for advice and counsel by others (Louis, 1980: 231).

As other clans, the Corps of Cadets appears to consist of these two major factions, each with its own distinct subculture. Newcomers (freshmen) are grouped into the socialization incubator. Recent graduates of the socialization incubator (sophomores) are insiders and maintain the internal integrity of the incubator by providing most of the training and indoctrination of newcomers and restricting newcomer access to intraorganizational influences (junior and seniors). More tenured insiders (juniors) conduct the day-to-day administration of the organization (e.g., feeding and housing of cadets)

that maintains the external shield of the incubator from extra-organizational influences.

The most senior group of insiders (seniors) provides the strategic direction of the organization, entrusted with providing the long-range vision of the concern.

Especially salient to this discussion is the relative isolation of the socialization incubator. Thompson points to the necessity of isolating the core services of an organization when the primary mission of that organization is to modify individuals in some substantial way:

When the intensive application of collected, specialized capacities represents a change in rather than merely a service to the client, the activity of the client himself becomes an important contingency for the organization. We would expect, therefore, that organizations operating intensively on the client seek to place their boundaries around that client (Thompson, 1967: 43).

Philip Selznick is in agreement and points out that isolation can be a necessary function in organizations in that it "requires continuous attention to the possibility of encroachment and to the forestalling of threatened aggressions or deleterious (though perhaps unintended) consequences from the actions of others" (1996: 131). Indeed, "where the intended change in the client is extreme, the placing of boundaries around the client is virtually complete" (Thompson, 1967: 43).

Equally as noteworthy as this idea of distinct groups (i.e., newcomers versus insiders) in clans is the lack of separation of newcomers from more tenured members in SIUC AFROTC. Recall that in AFROTC, newcomers can be found at every echelon of the organization. That is, "training" and "indoctrination" are idiosyncratic to each cadet and are conducted by a person or persons and or an organization or organizations not

associated with AFROTC. Freshmen can and do run the day-to-day administration of detachment activities. Whereas seniors in the Corps of Cadets mold the strategic vision of their organization, newcomers in SIUC AFROTC can and do assist in plotting the future course of their detachment. In light of this information, it seems less likely that recruits would inherit or create a subculture (i.e., newcomers versus insiders) within the detachment.

Organizational Design Theories and the Socialization Incubator

The preceding review of the socialization incubator concept provides only part of the answer with respect to the socialization process in clans. One must also look to organizational design for a more complete rendering of what happens in the socialization incubator. Organizational design

refers to managerial decisions that determine the structure and processes that coordinate and control the jobs of the organization. The outcome of organizational design decisions is a system of jobs and work groups, including the processes that link them. Their linking processes include authority relationships and communication networks in addition to specific planning and controlling techniques. In effect, organizational design creates a superstructure within which the work of the organization takes place (Gibson, Ivancevich, & Donnelly, 1991: 502-503).

Observe, Tom Burns and G. M. Stalker describe two basic approaches to organizational design: mechanistic and organic. Simply put, a mechanistic design is appropriate for stable environments characterized by predictability, and an organic design is best suited for turbulent environments typified by uncertainty (1996). In each case, the particular

design chosen functions to exploit the environment an organization is immersed in. Both designs have their stolid defenders and outspoken critics, with advocates maintaining that their design theory (be it mechanistic or organic) is superior to the other.

Which theories seem more plausible? Consider, a socialization incubator operates in a highly stable environment, isolated from the vagaries of internal and external dissonance. Therefore, it seems logical that any deliberation involving organizational design, with respect to a socialization incubator, should be relatively mechanistic. On the other hand, the most salient feature of the insider division in a clan is unpredictability since it must interact directly with the extra-organizational environment. Hence, it seems prudent that any consideration given to design, with respect to the insider division, should be, in the main, organic.

Of course, a design mix within the same organization is not a new concept.

Indeed, scholars have previously maintained that both a mechanistic and an organic design can exist simultaneously in different locals in the same organization (Burns and Stalker, 1996: 211; Stoner et al., 1995: 327). However, what is a novel idea is the notion that, in the main, a socialization incubator exists in clans and operates under a mechanistic design and the insider division operates under an organic design.

Importantly, this creative approach does not mimic contingency theory in that contingency theory posits that the socialization incubator, for example, would move from a mechanistic to organic design at will depending on the circumstances. Further still, even those scholars who maintain that both designs can co-exist in the same organization have not previously stipulated that those designs are generally restricted to specific divisions within the organization as the author of this study has.

Conclusion

This chapter presented a brief overview of the commissioning institutions used by the DoD to produce Air Force officers. Particular attention was given to senior military universities and AFROTC, institutions that are the subject of this study. Important differences between the socialization tactics of these organizations were explored. As noted, formal and closed socialization processes are used (in clans) to isolate newcomers from the rest of the organizational membership and the extra-organizational environment. This combination of tactics is labeled here as the "socialization incubator."

If there are indeed differences between groups in clans (i.e., newcomer versus insider values) because of their tenure-based subculture orientation, such differences might provide greater insight to the processes that clans use to indoctrinate newcomers. Further, as this literature review suggests, there may be a correspondingly noticeable absence of distinctive cultural elements between newcomers and more tenured members in organizations with market-oriented concerns. The next section will endeavor to compare and contrast these relationships using data collected from the Corps of Cadets and SIUC AFROTC.

CHAPTER 3

METHOD

Introduction

In this study, Air Force cadets from a senior military university and an AFROTC detachment were asked questions to determine their impressions of their organizations' cultures and membership' values. This chapter explains how those results were examined, noting the special emphasis on cultural differences between divisions based on isolation (i.e., socialization incubator and insider divisions). The AVP was the apparatus used to determine what kind of culture, if any, was present in these organizations and the PVP was used to assess individual values. The AVP reveals what kinds of values are attributed to an organization by its members (how my organization is) and what kinds of values members believe should be extolled by an organization (how my organization should be). By applying a discriminant analysis to the AVP and PVP data, it was also possible to ascertain whether or not there were statistically significant differences between the cultures and values of the Corps of Cadets and SIUC AFROTC. More importantly, this same technique also revealed if there were meaningful differences between these divisions (based on isolation) within the same organization. If these subcultures did exist, a regression analysis was performed to further understand this relationship. Although discriminant analysis could not demonstrate how these subcultures were divided, the literature review suggested that the socialization incubator should be relatively more mechanistic and the insider division more organic. By creating a mechanistic/organic culture score using the AVP data, it was possible to measure and plot the differences between the Corps of Cadets and SIUC AFROTC. The combination

of these statistical methods should give one a more accurate picture of the processes that take place in the socialization incubator.

Population

Participants

The graduate school at the Air Force Institute of Technology (AFIT), located in Dayton Ohio, conducted a study of DoD organizations. They distributed several surveys to USAF commissioning institutions to assess organizational culture. Data from those surveys are used in this study. The populations of interest were the Fall 1997 enrollment of Air Force cadets from the Corps of Cadets at Texas A&M University and the Fall 1997 enrollment of AFROTC cadets from SIUC. An attempt was made to survey the entire population at Texas A&M University, which consisted of 395 cadets. The cadets were surveyed over a four-day time frame (27 through 30 October 1997) during mandatory military class instruction periods. Of the usable surveys obtained, 329 were male cadets (89%) and 41 were female cadets (11%), for a total of 370 cadets. There were 153 freshmen (41%), 112 sophomores (30%), 66 juniors (18%), and 39 seniors (11%). The average age of the Corps of Cadets was 19.26 with a grade point average (GPA) of 2.66. Of the remaining cadets, 17 surveys were miscoded (4% of 395) and 8 cadets (2% of 395) were absent from class. The miscoded surveys and cadet absences were randomly dispersed among the classes. An attempt was made to survey the entire population at SIUC, which consisted of 105 cadets. The cadets were all surveyed at the same time (18 November 1997) and place during a mandatory military class instruction period. Of the usable surveys, 68 consisted of male cadets (75%) and 23 consisted of female cadets (25%), for a total of 91 cadets. There were 22 freshmen (24%), 27 sophomores (30%),

14 juniors (15%), 20 seniors (22%), and 8 graduate students (9%), for a total of 91 cadets. The average age of AFROTC cadets was 21.01 with a GPA of 3.17. Of the remaining cadets, 3 surveys were miscoded, (3% of 105) and 11 cadets (10% of 105) were absent from class. The miscoded surveys and cadet absences were randomly dispersed among the population. Table 2 provides an overview of these demographics.

Sampling Frames

Importantly, there were significant differences between the group sizes in the Corps of Cadets data and between the Corps of Cadets and SIUC AFROTC data. For example, the Corps of Cadets freshmen group was equal to 153, but the senior group only equaled 39. Some tests (e.g., discriminant analysis and regression analysis) are sensitive to variations in group sizes. In an effort to combat this problem, a sampling frame was created that took random samples from the larger groups that were roughly equal in size to the smallest group in the population.

Apparatus

The CVAT is a tool designed to assess organizational culture and personal values. The CVAT has been used to examine numerous organizations, both public and private. The CVAT is based on three important assumptions: "(1) All human systems have to do certain things (2) These things are often contradictory (3) We reveal ourselves when we choose between contradictory alternatives" (Nelson, 1990: 2). The Aggregate Values Profile (AVP) portion of the CVAT consists of 80 questions that are presented in such a way that it forces respondents to choose between four common human functions found in organizations: work, relations, control, and thought (each of these four major categories is further subdivided into four areas to uncover the subtle nuances associated with each of

the common human factors for a total of sixteen parameters). When people are forced to choose between alternatives, they naturally try to choose the ones that are most important to them. Thus, by juxtaposing each of these alternatives next to each other in many varied configurations, the true nature of the respondents feelings about an organization's culture emerges (Nelson, 1990).

The AVP accomplishes comparisons by asking the respondent to evaluate 20 series of 4 statements (totaling 80 statements). That is to say, the respondent chooses the value that best exemplifies his or her organization from among four statements (statements 1 through 4). He or she assigns that statement a value of "4." Then, from among the three remaining statements, the respondent chooses the statement that best exemplifies his or her organization. He or she assigns that statement a value of "3," and so on until the respondent has ranked the statements in order of most to least important (from "4" to "1," respectively) to the organization. The respondent then evaluates the next four statements (statements 5 through 8) using the same logic and continues until he or she has ranked all 20 sets of 4 statements. Because each of the sixteen parameters is evaluated five different times against three different values in each of these five comparisons, each value is evaluated against the entire range of the sixteen values. For example, "effort" (1) is ranked against affect (5), dominance (9), and abstraction (13) in statements 1 through 4. "Effort" (1) is then ranked against empathy (6), status (10), and planning/organizing (14) in statements 5 through 8. Next, "effort" (1) is ranked against sociability (7), politics (11), and (15) exposition in statements 9 through 12. Subsequently, "effort" (1) is ranked against loyalty (8), leadership (12), and flexibility (16) in statements 13 through 16. Finally, "effort" (1) is ranked against time (2),

finishing tasks (3), and quality (4) in statements 65 through 68. The remaining 15 parameters are similarly presented, forcing respondents to choose from these competing factors. What the AVP generates is a composite score for each of the sixteen parameters. Since each area is queried five times, the minimum possible score is a "5" (a "1" response or ranking five times) and the maximum score is a "20" (a "4" response or ranking five times). After the composite scores have been calculated for all sixteen areas, one can determine what elements of organizational culture are the most and least emphasized.

Now to the specifics on how the apparatus was administered. The cadets were first asked to rate their organization "as it is" (that is to say how they actually viewed the organization) using the AVP. Then the cadets were asked the same series of 80 questions, but this time they were to rate their organization "as it should be" (in other words, how they would rate the organization if it were ideal) using the AVP a second time. Finally, the cadets filled out a survey that assessed their values, using the 80-question PVP. The PVP uses the same logic as the AVP in that it forces respondents to choose between competing elements.

The AFIT graduate school attempted to query all Air Force cadets at each university using the AVP and PVP. All cadets answered the questions while attending military classroom instruction. In keeping with DoD guidelines, before the AVP and PVP were administered, all cadets were briefed that individual results would be kept confidential. They were also briefed that the results would be pooled, and no results or conclusions would be attributed to any individual. Following this disclaimer, the cadets were given a brief explanation on how the AVP and PVP work and instructions on how

to answer the questionnaires. A trained survey response prompter was on hand to answer any questions the cadets might have during the administration of the instrument.

Analysis

The idea that divisions within organizations are best viewed as the "clustering" of individuals into groups or subcultures is put forward by Thompson (1967: 59). In this context, group culture is "a set of understandings or 'meanings shared' by a group of people. The meanings are largely 'tacit' among members, are clearly 'relevant' to the particular group, and are 'distinctive' to the group" (Louis, 1985: 74). In this particular study, a single level of analysis is used. That individuals can "be viewed as interdependent due to the hierarchical structuring of multiple individuals, or as 'collectivities,'" is a traditional approach to testing theories of organizational behavior (Dansereau, Alutto, and Yammarino, 1984: 11).

Culture and Divisions in Organizations

Recall that people in organizations view their concerns differently depending on where they are located in the specialized divisions within their organization. In some organizations, these divisions can represent subcultures within an organization's culture. In fact, it is these divisional structures within organizations that are, in large part, responsible for the creation of subcultures in the first place. When structure creates both a barrier between certain members and "sustained interaction" between others, the "seeds of organizational subcultures are sewn" (Van Maanen and Barley, 1985: 37). (Recall that the most salient feature of the socialization incubator in the Corps of Cadets is isolation of the freshmen class.) Of particular interest to this study, some scholars maintain that the study of organizational subculture is at least as important as the collective culture

(Louis, 1985: 73-94, Van Maanen and Barley, 1985: 31-54). Indeed, the ability to predict the norms of subcultures (through testing devices as the AVP and PVP), lends evidence to the notion they exist in the first place and their importance with respect to maintaining a healthy and stable collective culture:

An individual's ability to distill My Subgroup [subculture] or They perspectives from their person-in-organization schemas provides evidence of the existence of subcultures. ... A more elaborate detailed schema for a group [subculture] makes taking their perspective easier and is suggestive of a coherent culture (Harris, 1996: 301).

If senior military universities actually shield their freshmen class from countervailing cultural influences, one would expect results that vary, and this variation should be dependent on where these cadets are located in the organization.

<u>Cultural Traits</u>

The dichotomy between the "mechanistic" viewpoint and the "organic" perspective in these organizational divisions is a critical one. Not surprisingly then, when studying organizational culture, work and interpersonal relationships are important traits (Nelson, 1990: 7-8). Clayton P. Alderfer elaborates on this perspective with his "existence, relatedness, and growth" (E.R.G.) theory. E.R.G. theory "holds the view that existence, relatedness, and growth needs are primary needs in the sense of being innate" (Alderfer, 1972: 7). Clare W. Graves holds a similar perspective to Alderfer and adds further to this discourse by positing a divisional "systems" approach to measure growth. That is, as one moves from one division to another in an organization, "[t]he mature man

tends normally to change his psychology as the conditions of his existence change" (1970: 133).

Although Graves sees this growth process on a continuum, she also points out that there is an inherent cultural stability in each organizational division:

Each successive stage or level is a state of equilibrium through which people pass on the way to other states of equilibrium, When a person is in one of the states of equilibrium, he has a psychology which is particular to that state. His acts, feelings, motivations, ethics, and values, thoughts and preferences for management are all appropriate to that state (1970: 133).

This observation is important because it assists in validating the idea that subcultures, resident in these organizational divisions, are stable enough to be measured. From these various perspectives certain universal themes tend to reoccur when examining organization culture. There are the task or work-related (WORK) concerns and the associated wielding of power (CONTROL) that accompanies the task dimension, and interpersonal relationships (RELATIONS) contrasted against this task aspect of culture. The CVAT adds a unique and useful test of "thought" in organizations. In this apparatus, thought is a measurement of the importance of such cognitive traits as abstraction, planning/organizing, exposition, and flexibility (Nelson, 1990: 8-9). This aspect of organizational culture is particularly important to this study in that there is a clear dichotomy between the mechanistic socialization incubator where cognitive traits (as defined here) are relatively less important than in the organic insider division. This fourth cultural trait (THOUGHT) fills out the final dimension of organizational culture measured in this study.

Design

Recall that a salient feature of clans is that they use a fixed socialization process (timetable) to indoctrinate their membership. All newcomers, for example, are located in the socialization incubator. On the other hand, the most senior members are normally located in the insider division, farthest removed from the socialization incubator. Since it is important that an accurate assessment be made of these various subcultures (e.g., socialization incubator versus insiders), this study can use tenure to its advantage because membership in the Corps of Cadet's subcultures, as in all clans, corresponds to tenure.

The Relationship Between Military Studies and Organizational Divisions

There appear to be four distinct divisions in the Corps of Cadets associated with tenure. The first division (freshmen) are located in the socialization incubator. The remaining divisions (sophomores, juniors, and seniors) are composed of "insiders." So in one sense, the Corps of Cadets still has two basic components, a socialization incubator and insider element. However, what is noteworthy about this particular study is one can further refine the insider division because of the idiosyncratic nature of the data. That is, it is possible to determine from these data the relative proximity (based on tenure) of the insider division's membership from the socialization incubator.

Conveniently, a cadet's position in a senior military university is usually commensurate with his or her enrollment level in military studies. That is, proximity to the socialization incubator in these commissioning institutions is determined by enrollment in aerospace studies (AS). This AS classification is nothing more than an indicator of the level of military instruction cadets are enrolled in. First-year cadets enroll in AS100. After completing AS100, second-year cadets enroll in AS200, and so

on until they reach AS 400. Again, the rationale behind grouping the data this way is that cadets' relative position in a senior military university normally parallels their level of AS enrollment. For example, all first-year cadets are restricted to the socialization incubator in the Corps of Cadets. Although second-year cadets are no longer members of the socialization incubator, they occupy positions that are in close proximity, and their roles are fairly restricted in that their primary function is training and indoctrinating first-year cadets. Third-year cadets, with the exception of one or two positions in the insider division, all hold offices that are between sophomores and seniors with respect to their closeness to the socialization incubator. Fourth-year cadets are farthest away from the socialization incubator. To briefly recap, first-year cadets are in the socialization incubator. Second-year cadets, who supervise the first-year cadets, are insiders but are in close proximity to the socialization incubator. Third-year cadets occupy positions between sophomores but below seniors in relation to the socialization incubator. Fourth-year cadets are located farthest from the socialization incubator.

Notably, there is a corresponding lack of distinct organizational divisions in SIUC AFROTC associated with tenure since no socialization timetable exists (a variable socialization process). As previously observed, market-oriented organizations such as SIUC AFROTC do not use a socialization incubator to indoctrinate newcomers. Instead, socialization processes in AFROTC are idiosyncratic to the individual. Hence, subcultures, to the extent that they exist at all, are not associated with tenure.

Discriminant Analysis

An important initial statistical method that can assist in determining the degree of distinction between individual perspectives concerning the values extolled by organizations is discriminant analysis. Discriminant analysis

is concerned with distinguishing (that is, discriminating) between two or more groups of individuals on the basis of a common set of variable values for each of the individuals in each group (Cooper and Weekes, 1983: 277).

Importantly, in discriminant analysis the groupings are determined a priori to testing the data (Lorr, 1983). In this particular study, it is hypothesized that members of the Corps of Cadets tend to be more supportive of traditional military values than members of SIUC AFROTC. The groupings are, of course, the Corps of Cadets and SIUC AFROTC. It is also hypothesized that members of the Corps of Cadets tend to have personal values that are more similar to the traditional military values than members of SIUC AFROTC. Again, the groupings are the Corps of Cadets and SIUC AFROTC. Mechanically, a discriminant analysis creates regression equations or functions that maximize, in a least-squares way, a dependent variable representing group membership (Kerlinger, 1986). The number of functions is equal to k-1, where k is equal to the number of groups. For example, if there are four groups, three functions are created. The first function maximizes the ratio of the between-groups sum of squares to the withingroups sum of squares (Norušis, 1994). This discriminant "score" is referred to as an eigenvalue. The second function is a calculation of the second-largest eigenvalue of the cross-product matrices and is uncorrelated to the first function (Stevens, 1992). The third largest function is the third-largest eigenvalue and so on.

When a discriminant analysis is performed using SPSS Version 7.0, the first line produces an eigenvalue that calculates the overall significance of the model by "lumping together" all three discriminant functions (Stevens, 1992: 282). A Bartlett's Chi-square test reveals the significance of the function, and a percentage of the variance (similar to the coefficient of determination) associated with how well the function separates the groups is also reported. The second line produces an eigenvalue that removes the first (and most significant) function, leaving a model that combines the second and third functions. The final line is simply the eigenvalue solely associated with the third function. There are also Chi-square significance tests and variance percentages associated with the second and third lines. Note that since the functions are uncorrelated and the total association is additively partitioned, the variance percentage of the functions will always sum to 100 (Stevens, 1992: 282).

Ultimately, what the discriminant analysis technique will tell one is if it is possible to separate the Corps of Cadets and SIUC AFROTC data in a statistically significant way. The first test will deal with differences between member perceptions of what kinds of values these organizations should espouse. The second test will reveal whether or not there are statistically significant differences between the personal values held between members of the Corps of Cadets and SIUC AFROTC.

Discriminant analysis can also be useful in a more inductive examination of these socialization processes. Consider, it is possible that four distinctive divisions exist (distinguishable by tenure and, therefore, proximity from the socialization incubator) in one of the organizations of interest, Corps of Cadets, and is absent in the other organization, SIUC AFROTC. What one may find with organizations that have a

socialization incubator is that these sixteen culture variables from the Corps of Cadets creates one or more functions with significant explanatory power (i.e., high variance percentage). That is, if four distinct divisions exist as measured by these cultural parameters, a discriminant analysis may create functions that have significant explanatory power in grouping these data. Conversely, the SIUC AFROTC data may not create functions with meaningful explanatory power.

The specifics of the design follow: A discriminant analysis will be performed on the data using SPSS for Windows (Version 7.0). First, a test will be conducted to determine if there are statistically significant differences between the individual perspectives on the values that should be extolled by organizations. The combined Corps of Cadets and SIUC AFROTC AVP data sets (how my organization should be) will be the "grouping" variable. The sixteen culture variables will be used to attempt to concurrently discriminate between the two organizations. Second, a test will be conducted to determine if there are statistically significant differences between the individual values. This time, the combined Corps of Cadets and SIUC AFROTC PVP data sets (personal values) will be the "grouping" variable. The sixteen value variables will be used to attempt to concurrently discriminate between the two organizations.

Taking an inductive approach, each organization's culture will be examined separately. AS classification will be the grouping variable. (Recall, AS level is a measure of tenure and, therefore, proximity to the socialization incubator.) The sixteen culture variables will be used to attempt to concurrently discriminate among the various levels of these organizational divisions.

Regression Analysis

After discriminant analysis demonstrates whether or not these culture variables can be used to separate these four "groups" or subcultures in a significant way, the next logical step to further understand this relationship would be a regression analysis. Although the discriminate analysis does not reveal how these groups are separated or "discriminated," the literature review suggests that clan-like organizations may have a socialization incubator with a somewhat mechanistic culture and an insider division with a relatively organic culture. Once again, AS classification, which reflects these various divisions in the Corps of Cadets, will be used as the dependent variable. The composite culture score variable (obtained from AVP results), which represents where an individual lies on the mechanistic/organic continuum, will be used as the explanatory variable (recall that this variable is nothing more than the ratio of the mechanistic scores to the organic scores). After the regression analysis is performed on the data sets, the functions will be plotted on a graph to observe differences between their slopes. Note also that since it is possible to calculate the maximum mechanistic and organic scores, it is also possible to graph the "maximal" socialization incubator function (maximal in the sense that the socialization incubator receives the highest mechanistic score and insider division the highest organic score). Relative placement in the organization (socialization incubator versus the insider division) is placed on the x-axis, with the mechanistic/organic score obtained from the AVP placed on the y-axis. When the lines of these two organizations are placed on the same graph, what one may find is the Corps of Cadets has a steeper slope than that of SIUC AFROTC, with the Corps of Cadets having more mechanistic AS 100-level (freshmen) cadets and more organic AS 400-level (seniors) cadets than SIUC AFROTC.

Of course, the differences between these slopes might be somewhat revealing visually, but what is needed is a statistical measure of their differences (if any). This is accomplished by hypothesis testing of statistical differences between slopes (McClave and Benson, 1991). The data are first combined (that is both Corps of Cadets and SIUC AFROTC) to create a "complete model." Organizational divisions (i.e., AS levels) will be the dependent variable. The independent variables will be Culture (overall mechanistic/organic score), Source (Corps of Cadets or SIUC AFROTC), and an interaction term (Culture multiplied by Source). The Source variable will be qualitative and coded as "0" for the Corps of Cadets and "1" for SIUC AFROTC. If there is no significant difference between the slopes of the mechanistic/organic continuum from the Corps of Cadets and SIUC AFROTC, a single line generated by the complete line should adequately describe the relationship between mechanistic/organic culture scores and divisions for both organizations (the null hypothesis). If a single line does, indeed, characterize the relationship of both organizations, the Source (since commissioning source would not be relevant) and interaction term variables will not be needed. A second or "reduced model" will thus be derived that removes the Source variable and interaction term. By comparing the completed to the reduced model, one can measure the drop (if any) in the sum of squared errors between the two models. If the change is sufficient enough (i.e., the slopes are dissimilar enough), one can reject the null hypothesis that a single line adequately describes the relationship between mechanistic/organic culture scores and divisions for both organizations.

Summary

This chapter examined the participants in the study and the apparatus used to assess the culture and personal values in their respective organizations. The specifics of the design were then put forward. As reported, discriminant analysis will be used to determine the differences between member perceptions of what kind of values organizations should espouse and whether or not there are statistically significant differences between the personal values held between members of the Corps of Cadets and SIUC AFROTC. Also, discriminant analysis will be used to establish the degree to which these inter-organizational divisions can be separated by culture and personal values. Once this has been established, regression analysis will ascertain how well this group separation based on culture (if, indeed, it exists in the first place) is explained by the mechanistic/organic continuum. The next chapter reports the results of the application of these methods to the data.

CHAPTER 4

ANALYSIS AND RESULTS

Introduction

This section deals with the application of statistical methods to the data as outlined in the previous chapter. A discriminant analysis was performed on the AVP data to look for statistically significant differences between Corps of Cadets and SIUC AFROTC members' perceptions of the kinds of values organizations should espouse. Following that, a similar test was applied to the PVP data in an effort to determine whether or not there were statistically significant differences between the personal values held between members of the Corps of Cadets and SIUC AFROTC. Subsequent to this operation, another discriminant analysis was conducted to detect meaningful cultural distinctions between AS levels in the Corps of Cadets AVP data. The same test, again using AS level as the grouping variable, was performed to search for differences between personal values in the Corps of Cadets PVP data. Similar tests were then applied to the SIUC AFROTC AVP and PVP data. Following these discriminant analysis procedures, a regression analysis was performed on the Corps of Cadets AVP data (how my organization is). The dependent variable was AS level, and the dependent variables were the cultural parameters from the AVP data. Keeping AS level as the dependent variable, a similar test was performed on the 16 personal value parameters from the Corps of Cadets PVP data. Again, similar operations were conducted on the SIUC AFROTC AVP and PVP data. The ensuing regression analysis allowed a graphical display of these relationships by reducing the cultural parameters to one variable, which represented the mechanistic/organic dichotomy of these organizations' cultures. As before, AS level was

the dependent variable, but only one dependent variable, "culture" (mechanistic/organic score), was used to produce the function. Both the Corps of Cadets and SIUC AFROTC AVP data (how my organization is) was graphically juxtaposed against each other in a series of figures. Finally, a more robust method of calculating variations, beyond simple visual examination, between the functions was conducted by testing the slopes for statistically significant differences.

Discriminant Analysis

A discriminant analysis was performed on the data. The first test attempted to ascertain whether or not there was a statistically significant difference between member perceptions of what kind of values these organizations should espouse. The combined Corps of Cadets and SIUC AFROTC data sets was the grouping variable (Corps of Cadets was coded 0 and SIUC AFROTC was coded 1). The sixteen culture variables from the AVP (how my organization should be) were used to discriminate between the two organizations. The second combined data set examined consisted of cadet responses about their personal values (PVP).

Corps of Cadets Versus SIUC AFROTC

The results of the discriminant analysis for the combined Corps of Cadets and SIUC AFROTC AVP (how my organization should be) data set are presented in Table 3. These data produced a large eigenvalue, .1933 (a measure of the effectiveness of each function (Cooper and Weekes, 1983) for the function). (Note that since there is only one function, it must account for 100% of the variance.) More importantly, the function was significant at the .05 level according to Bartlett's Chi Square test of the residuals. Also impressive was the model's predictive power, which accurately predicted group

membership at 68.7%. According to these results, the sixteen culture variables comprised a significant degree of the discriminant strength of the entire analysis, providing evidence that it was quite easy to separate the Corps of Cadets and SIUC AFROTC membership data using the "how my organization should be" organizational cultural parameters. By examining the individual ANOVAs from this data set, one can note that there were statistically significant differences between several key parameters. In relation to what SIUC AFROTC cadets believed, the Corps of Cadets membership believed an organization should stress dominance and loyalty and place less emphasis on flexibility and exposition (see Table 4).

The results of the discriminant analysis for the combined Corps of Cadets and SIUC AFROTC PVP (personal values) data set are presented in Table 5. These data produced an eigenvalue of .1684. The function was significant at the .05 level. The model accurately predicted group membership at 68.8%. According to these results, the sixteen personal values variables also comprised a major degree of the discriminant strength of the entire analysis. In this case, it was not difficult to separate the Corps of Cadets and SIUC AFROTC membership data using their personal values. Again, by examining the individual ANOVAs from this data set, one can note that there were statistically significant differences between several key parameters. (see Table 6).

Organizational Divisions Based on Isolation

In the second series of tests, AS classification, which reflects the various divisions (i.e., socialization incubator versus insider divisions) in these organizations, was used as the grouping variable. The sixteen cultural traits from the AVP (how my organization is) were used as the explanatory variables to discriminate between the various divisions.

The Corps of Cadets AVP data set, consisting of cadets' responses to existing organizational culture, was examined first. This was followed by a similar examination of the Corps of Cadets PVP data set. The identical procedure was then conducted on the data collected from SIUC AFROTC cadets

The Corps of Cadets at Texas A&M

The results of the discriminant analysis for the Corps of Cadets AVP data set are presented in Table 7. These data revealed large eigenvalues for the first two functions. When both the first and second functions were combined, 96% of the variance was accounted for in this model. Further, both the first and second functions were significant at or below the .05 level according to Bartlett's Chi Square test of the residuals. The model accurately predicted group membership at 62.9%. The sixteen culture variables comprised a significant degree of the discriminant strength of the entire analysis, providing evidence that it was quite easy to separate these divisions (newcomers versus insider divisions) by using these cultural parameters.

The results of the discriminant analysis for the Corps of Cadets PVP data set are presented in Table 8. These data revealed large eigenvalues for the function. The first function accounted for 67% of the variance. Further, the first function was significant at the .01 level according to Bartlett's Chi Square test of the residuals. The model accurately predicted group membership at 45.3%. The sixteen personal values parameters comprised a significant degree of the discriminant strength of the entire analysis, providing evidence that it was quite easy to separate these divisions (newcomers versus insider divisions) by using the cadets' personal values.

SIUC AFROTC

The results of the discriminant analysis for the SIUC AFROTC AVP data set (how my organization is) are presented in Table 9. These data revealed significantly smaller eigenvalues relative to the results generated from the Corps of Cadets' data. The first (and only significant function) accounted for 49% of the variance. The first function was significant at the .05 level according to the Bartlett's Chi Square test of the residuals. However, the second function was not significant according to this statistic (p = .2124). The model accurately predicted group membership at 57.1%. The sixteen culture variables for the SIUC AFROTC data did not comprise a significant degree of the discriminant strength of the entire analysis, making it more difficult to separate these divisions by using these cultural parameters.

The results of the discriminant analysis for the SIUC AFROTC PVP data set are presented in Table 10. These data reveal significantly smaller eigenvalues relative to the results generated from the Corps of Cadets' data. None of the eigenvalues were statistically significant according to the Bartlett's Chi Square test of the residuals. The model accurately predicted group membership at 44.3%. The sixteen personal values parameters for the SIUC AFROTC data did not comprise a significant degree of the discriminant strength of the entire analysis, making it more difficult to separate these divisions by using the cadets' personal values.

Regression Analysis

Since the discriminant analysis demonstrates that it was possible to clearly delineate between these four divisions by using these culture variables (at least with respect to the data from the Corps of Cadets), a regression analysis was warranted to further understand the nature of this relationship.

Once again, AS classification, which reflects organizational divisions in these organizations, was used as the dependent variable. In the first series of tests, relatively straight-forward models were developed simply using all 16 culture variables (weighted equally) as the explanatory variables. In the next series of regression, the composite culture score variable (obtained from AVP results), which represents where an individual lies on the mechanistic/organic continuum, was used as the explanatory variable (recall from the methodology section that it is nothing more than the ratio of the mechanistic score to the organic score).

The results of the regression analysis for the Corps of Cadets and SIUC AFROTC AVP are presented in Tables 11 and 12. The adjusted \underline{R}^2 for the Corps of Cadets was .44 and was significant at the .0001 level. The adjusted \underline{R}^2 for SIUC AFROTC was -.001 and was not significant (p = .472). The results of the regression analysis for the Corps of Cadets and SIUC AFROTC PVP data are presented in Tables 13 and 14. The adjusted \underline{R}^2 for the Corps of Cadets was .132 and was significant at the .01 level. The adjusted \underline{R}^2 for SIUC AFROTC was .019 and was not significant (p = .360).

When the mechanistic/organic functions of the AVP data were displayed graphically and juxtaposed against the optimal model, one could note that the Corps of Cadets and SIUC AFROTC were less mechanistic at AS 100 level and less organic at AS 400 level than the optimal model (see Figures 2-3). Further, when the Corps of Cadets was compared to the SIUC AFROTC AVP data, one could note that the Corps of Cadets had a more mechanistic AS 100 level and organic AS 400 level (see Figure 4).

Although the slopes of the Corps of Cadets and SIUC AFROTC AVP functions were different as the previous graph illustrated, were they statistically significantly

different? In order to test this hypothesis, two models were created. A complete model pooled both AVP data sets, and then a reduced model was produced. Subsequently, the reduction in the mean square error from the complete to the reduced model was examined. The resulting F statistic from the AVP data was 7.13 and was significant at the .01 level (see Table 15).

Summary

This section discussed the results of the statistical methods applied to the data. The discriminant analysis revealed that the Corps of Cadets and SIUC AFROTC could be separated when comparing both their values and cultures. Further, when discriminant analysis was applied to the Corps of Cadets data, it was easily separated into four distinct divisions when divided by both the AVP and PVP variables. Conversely, the SIUC AFROTC data did not generate functions that readily discriminate between its organizational divisions, either by culture or personal values. When a regression analysis was applied to the Corps of Cadets data (how my organization is), a significant percentage of the variance of the data between these divisions was explained by the mechanistic/organic continuum. On the other hand, the SIUC AFROTC data did not reveal any significant association between these divisions and this mechanistic/organic continuum. The implications of these results are discussed in the following chapter.

CHAPTER 5

CONCLUSIONS AND RECOMMENDATIONS

Introduction

The final chapter discusses the findings that are relevant to the research question and develops a theory about the socialization processes used by clan-like organizations. This theory is based on the culture and personal values data analysis as well as a qualitative assessment of the two organizations examined in this study.

Research Question and Hypotheses

Recall that a central research question revolved around the notion that clans socialize their members in a different way than market-oriented concerns. It was posited that clans attempt to make members believe that achieving their organizations' goals is worthwhile and is in their (members') long-term best interests. It was also posited that clans significantly alter individual beliefs and attitudes during these socialization processes.

Hypothesis 1

Members of the Corps of Cadets (clan) tend to be more supportive of organizations that espouse traditional military values than members of SIUC AFROTC (market).

The data tend to support this hypothesis. A comparison of the Corps of Cadets and SIUC AFROTC membership with respect to how they view the "ideal" organizational culture reveals they are quite distinct. A discriminant analysis model can be constructed using AVP data (how my organization should be) that accurately predicts group membership 68.7% of the time and is statistically significant. The Corps of Cadets

membership places more emphasis on dominance and loyalty and less emphasis on flexibility and exposition when compared to their SIUC AFROTC counterparts. This pattern fits the traditional military ethos.

Hypothesis 2

Members of the Corps of Cadets (clan) tend to have personal values that are more similar to traditional military values than members of SIUC AFROTC (market).

The data is also supports this hypothesis. A comparison of the Corps of Cadets and SIUC AFROTC membership with respect to their personal values does reveal a significant distinction. A discriminant analysis model using PVP data that accurately predicts group membership 68.8% of the time and is statistically significant at the .05 level.

Organizational Divisions Distinguished By Isolation

In a discriminant analysis of the Corps of Cadets culture survey results, AS level is used as the grouping data. Since a model can be constructed that separates these groupings in a statistically significant way, accounts for 96% of the variance, and accurately predicts group membership by 62.9%, it supports the idea that strong subcultures (or, at least, "statistically significant" subcultures) exist in the Corps of Cadets, a clan-like organization. Perhaps more importantly, the socialization incubator's subculture (AS 100) appears to be quite distinct from those of the insider division (AS 200, AS 300, AS 400). With respect to personal values, it turns out that a model can likewise be constructed that separates these groupings in a statistically significant way and accounts for 67% of the variance, and accurately predicts group membership by 45.3%. Therefore, it can be stated that these data provide evidence that cadets in the

socialization incubator hold values that are somewhat different from those in the insider divisions.

In a discriminant analysis of the SIUC AFROTC culture data (how my organization is), AS level is also used as the grouping data. However, the results are different in that a model cannot be created that separates these groups in a statistically significant way. At the very least these test results imply divisional subcultures distinguished by isolation do not exist in the SIUC AFROTC detachment. The absence of a socialization incubator in market-oriented organizations may account, at least in part, for the absence of these particular subcultures. Concerning personal values, SIUC AFROTC cadets cannot be grouped by AS level in a statistically significant way when the discriminant analysis method is applied.

Regression Analysis Results

Multiple Regression Models

Corps of Cadets' CVAT Data

Discriminant analysis demonstrates how individuals can best "be assigned to groups on the basis of several variables" (Kerlinger, 1986: 561). In its application to the Corps of Cadets culture data (how my organization is), the analysis demonstrated the effectiveness of assigning cadets to AS levels by using cultural parameters. Taking these statistical measures one step farther, a probabilistic model can be created using multiple regression techniques. When AS level is the dependent variable and the 16 culture parameters are the independent variables, the adjusted \underline{R}^2 is .44 (p < .0001). That is, 44 % of the variation in AS level is attributable to these cultural measures. With respect to AS level, these Corps of Cadets' culture data fit the model extremely well.

Corps of Cadets' PVP Data

When AS level is the dependent variable and cadet values are the independent variables, the adjusted \underline{R}^2 is .13 (p < .0001). Although statistically significant, the fit between cadet values and the model is not conspicuous. Upon closer inspection, however, the personal values multiple regression residuals may yield the explanation for this poor fit. Recall that a residual "is equal to the difference between the observed y value and its estimated (regression) mean" (McClave and Benson, 1991: 565). In this particular case, a residual is a measure of how far a person's values lie from a mean generated by the regression model. For example, if people who are members from a particular AS level have relatively similar values, the variation and, therefore, the residuals will be small. Conversely, if people who belong to a particular AS level have relatively dissimilar values, the variation and concomitant residuals will be large. Of course, as long as the variation in these residuals are similar (i.e., homoscedastic), regression model assumptions are not violated (Gujarati, 1995: 355-356).

When the residuals of the Corps of Cadet's AVP model are examined using a modified Park test, they exhibit the classic heteroscedastic condition known as an "error-learning" model – only in reverse (Gujarari, 1995: 357), which explains, at least in part, why the coefficient of determination is vitiated. Recall that in an error-learning model there is usually a relationship between practicing a task and the number of errors committed while accomplishing that task. As the number of hours of practice increase, the number of errors decrease. However, not only do the number of errors decrease but also the variation in the number of errors decrease (see Figure 5). A boxplot of the error-learning model residuals also exhibits this heteroscedastic phenomenon (see Figure 6).

As one moves from one hour of practice to four hours of practice, the interquartile range, outliers, and medians all shrink. In the Corps of Cadets' personal value data, the opposite is true. As one advances in tenure, the variation in values (around the mean) increases as the residuals generated from these data demonstrate (see Figure 7). Why would this pattern exist in the data? One logical explanation is that people in the socialization incubator, who operate in an extremely mechanistic and isolated environment, have, by design, relatively similar values. Recall that one of the processes associated with clanlike organizations is collectivity, wherein a major goal is a "standardized" consciousness (Becker, 1970). People in the insider division, who are no longer members of the socialization incubator but are the most recent members of that subgroup (that is, in close proximity with respect to tenure to people who are in the socialization incubator), would probably have the next most like values. People in the organic insider division who are farthest removed from the socialization incubator would seemingly have the greatest divergence of values.

Would one expect this relationship between variation in values and tenure to be a static one? Probably not, given that socialization is a dynamic process. Consider, when new recruits become members of a clan-like organization and enter the socialization incubator at time t(0), they are apt to hold values that are, relative to the more tenured members, quite distinct from each other. Also at t(0), people in the insider division who are the most recent "graduates" of the socialization incubator are likely to have the most unified perspective. People in the organic insider division who are the farthest removed from the socialization incubator, should have values that are more dispersed than those insiders closer to the socialization incubator (see Figure 8). After newcomers have been

immersed in the socialization incubator for a time, t(1), their values begin to "compress" toward some mean (what Thompson refers to as a "homogenizing influence" (1967: 103)) that represents the values extolled by the organization. At the same time, the variation in inside division members' values increases as the amount of time increases from the point at which they left the socialization incubator (see Figure 9). As this process continues, newcomers eventually overtake the insider division, t(2)(see Figure 10), and then, t(3) (see Figure 10). Once newcomers complete their tenure in the socialization incubator, they generally have the most unified values of any group in the clan-like organization. These relationships are summarized in Figure 12.

Do these data demonstrate such a relationship? Recall that the Corps of Cadets was surveyed in late October. Certainly, the socialization process of the freshmen class was not complete at that time. Instead, the compression of their values was probably closer to some point between t(1) and t(2). As a result, a likely arrangement would have sophomores (AS 200) with the lowest value variation, next juniors (AS 300), followed by freshmen (AS 100) and then seniors (AS 400). A regression model of this relationship would have variation of personal values (as measured by taking the absolute value of the residuals) as the independent variables, inverting AS 100 and AS 300 (AS levels are the dependent variables). And, indeed, when a regression of the data are arranged in this fashion, it produces a function with an \mathbb{R}^2 of .39 (p < .0001) (see Table 16). These results could be demonstrating that individuals' values in clan-like organizations vary over time and in a predictable pattern. This pattern matches the Moreland and Levine model of group socialization in some important respects. The model posits five stages of organizational socialization that are divided by four transformation points. At initial

entry, newcomer commitment is at a low point (e.g., when new cadets entering the socialization incubator). During the socialization process, recruits come to accept the "group's norms, values, and perspectives" (Forsyth, 1991: 96), and the level of individual commitment to the organization is at its highest point (e.g., when new cadets leaving the socialization incubator). After this initial acceptance, there is a period of divergence where members' commitment to the organization begins to wane (e.g., sophomore and junior insiders). When tenured members leave an organization, their level of commitment is again at a low point (e.g., seniors).

At the very least, these data in this study and extant socialization models, like that of Moreland and Levine, point to the need for studying socialization as a process as opposed to a static event.

SIUC AFROTC's AVP Data

When the SIUC AFROTC culture data is used to conduct a regression analysis, the adjusted \underline{R}^2 was .01 and was not significant. When AS level is the dependent variable and the 16 culture parameters are the independent variables, the adjusted \underline{R}^2 is .01 (p < .472). Further, when AS level is the dependent variable and cadet values are the independent variables, the adjusted \underline{R}^2 is .02 (p < .360). These results are consistent with the discriminant analysis tests in that not only did the discriminant analysis tests fail to show any statistical meaningful results with regard to AS groupings but also statistically insignificant multiple regression models were produced that lacked substantive utility.

Linear Regression Models: The Mechanistic/Organic Dichotomy

Recall that it was gleaned from the literature review that the socialization incubator was relatively more mechanistic than the insider divisions. In order to ascertain

the validity of this statement, a single culture variable is created from the 16 culture parameters, which represents a ratio of mechanistic to organic responses. Once again, AS level is the dependent variable with the mechanistic/organic culture variable as the independent variable. Interestingly, Figure 4 demonstrates that the Corps of Cadets has more variability in its culture with respect to this mechanistic/organic continuum. That is, at AS 100 level (the Corps of Cadets' socialization incubator) the Corps of Cadets has a more mechanistic culture than that of SIUC AFROTC. Because of the relatively steep rise of the Corps of Cadets' slope, by the time one reaches AS 400 level (the Corps of Cadets' insider division farthest away from the socialization incubator) the Corps of Cadets has a more organic culture than that of SIUC AFROTC. Although one can observe from these graphical presentations that the slopes are different, a hypothesis test of these differences confirms that they are also statistically significantly different (p < .01). To repeat, in both organizations new recruits point out that their organizations are relatively mechanistic. By the time people in these organizations have advanced to AS 400, they view their organization's culture as relatively more organic. Nevertheless, there are important distinctions between these organizations in that newcomers in the Corps of Cadets, a clan-like organization, purport that their organization is more mechanistic than their SIUC AFROTC comrades, who are members of a market-oriented concern. Further, culture in the Corps of Cadets changes at a more rapid pace than that of SIUC AFROTC so that by the time cadets become members of the "outermost" insider division in the Corps of Cadets, they maintain that their culture is more organic than their SIUC AFROTC counterparts.

Discussion

One thing is clear, the Corps of Cadets and SIUC AFROTC are different organizations, notwithstanding the fact they have the same mission of preparing cadets to be officers in the Air Force. They are dissimilar along several critical organizational dimensions, especially those concerning culture. One of the major reasons such differences exist appears to be because of a heretofore unnamed phenomenon known as the "socialization incubator" in the Corps of Cadets, a clan-like organization. Of particular importance to this study are the processes used by this socialization incubator, notably formal (isolating newcomers from those members outside of the organizational incubator) and extra-organizational (isolating newcomers from people outside of the organization) socialization schemes, to socialize newcomers. These processes seem to be designed to compress newcomers' perspectives about what is an appropriate organizational ethos towards some mean. SIUC AFROTC, on the other hand, does not socialize its members to believe in an all-encompassing organizational ethos. Nevertheless, as different as these organizations are, when cadets from both institutions graduate from these universities, they seem to have relatively similar personal values. So, despite the fact that members of the Corps of Cadets espouse certain organizational values, this intense socialization process does not appear to fundamentally change their personal attitudes, habits, beliefs, etc. In this sense, the Air Force may be achieving its stated goal of value diversity.

Of far greater significance are the findings that seem to refute the commonly held belief that clans have a relatively monolithic culture. Quite the contrary, these data portray an organization with clearly discernable subcultures, the most significant being the socialization incubator and insider divisions. Indeed, the socialization incubator subculture is the antithesis of the clan ethos. Not the least of which are the many rules governing behavior and limited opportunities for communication between people in other divisions. Clearly, further study is needed to make a more definitive assertion.

Notwithstanding the necessity for more research, however, this study forces one to at least contemplate that the fundamental makeup of clans may be strikingly different than previously envisioned. The theory that follows offers a rationale about this new perspective on clans.

Towards a Theory of Socialization in Clans: The Role of the Socialization Incubator

One of the principle goals of clan-like organizations is newcomer socialization. To accomplish this task, these types of concerns place new recruits in a special division of their organization, the socialization incubator. In the incubator, new recruits are socialized collectively, sequentially, and on a fixed time table, and certain selected tenured members of the organization (insiders) act as role models for new recruits while conducting training. In order to increase the intensity of the socialization process and eliminate disruptive influences, this enculturation takes place in extreme isolation from both the remaining tenured members and the extra-organizational environment. Of course, newcomers come to the concern with disparate values (relative to the rest of the organization). Nevertheless, although new recruits' values significantly vary when they first join an organization, these processes compress their values towards some desired mean established by the organization. When these processes are complete, recruits have the most consistent values in the organization followed by other members in relation to their proximity to the socialization incubator. Notably, the most tenured members of the organization will have the most disparate values at the conclusion of the socialization

process when newcomers leave the socialization incubator and become organizational insiders.

Recommendations for Further Research

One of the important idiosyncrasies of this study is that the data are cross sectional. Since the socialization incubator may best be studied as a process, future research may produce more fruitful results by collecting data at several points along the process timeline. For example, the values of newcomers could be assessed before they actually enter the socialization incubator, t(0). Additional surveys could be administered throughout the socialization operation at other cogent periods to include a final survey to measure the overall effect of the socialization incubator at the end of the process.

Another important aspect of these data are the properties of the institutions themselves. The Corps of Cadets, a senior military university, is certainly on the far end of the clan archetype. Japanese corporations, which also have a clan orientation for example, might produce different results than those gathered here. This points to the need for not only a time series data compilation but also a data collection covering a wide ranging scope of clan-like organizations, to include but not limited to other military organizations, corporate cultures, religious concerns, and cults.

Table 1
Socialization Tactics: Market-Oriented Versus Clan-Like Organizations

Corps of Cadets (Clan)	SIUC AFROTC (Market)
Collective	Individual
Formal*	Informal
Sequential	Random
Fixed	Variable
Serial	Disjunctive
Divestiture	Investiture
Closed*	Open

Note.

^{*}Integral element of newcomer isolation

Table 2

Demographic Data: The Corps of Cadets Versus Southern Illinois University at

Carbondale (SIUC) Air Force Reserve Officer Training Corps

	Corps of Cadets	%	SIUC AFROTC	%
Population	395		105	
Usable Surveys	370	94	91	87
Miscoded	17	. 4	3	3
Absent	8	2	11	10
Total	395	100	105	100
Male	329	89	68	75
Female	41	11	23	25
Total	370	100	91	100
Graduate Students	0	0	8	9
Seniors	39	11	20	22
Juniors	66	18	14	15
Sophomores	112	30	27	30
Freshmen	153	41	22	24
Total	370	100	91	100

Table 3

<u>Discriminant Analysis Results of the Aggregate Values Profile (How My Organization</u>

<u>Should Be): The Corps of Cadets Versus Southern Illinois University at Carbondale Air</u>

<u>Force Reserve Officer Training Corps (N = 182)</u>

Predicted Group Membership					
Actual Group	No. of Cases	SIUC AFROTC	Corps of Cadets		
SIUC AFROTC	91	61 (67%)	30 (33%)		
Corps of Cadets	91	27 (30%)	64 (70%)		

Note. Grouped cases classified correctly = 68.7%.

Eigenvalue = .1933, p < .05.

Table 4

Analysis of Variance for Member Perception of Desired Organizational Values: Corps of

Cadets Versus Southern Illinois University at Carbondale Air Force Reserve Officer

Training Corps (SIUC AFROTC) (N = 182)

Source	Corps of Cadets M	SIUC AFROTC M	<u>F</u>
Effort	16.43	16.22	00.37
Time	12.54	12.53	00.06
Job	14.04	13.23	00.03**
Quality	16.64	15.99	00.08*
Affect	9.97	10.30	00.40
Empathy	10.13	9.65	00.21
Sociability	11.15	11.14	00.00
Loyalty	13.78	12.92	02.84*
Dominance	14.07	13.25	04.03**
Status	10.54	10.12	01.16
Political	7.79	8.32	01.76
Leader	16.78	16.81	00.01
Abstract	10.84	11.85	05.12**
Plan/Organize	13.41	13.22	00.29
Exposition	10.87	12.12	11.16***
Flexibility	11.11	12.31	07.12***

<u>Note.</u> * \underline{p} < .10, ** \underline{p} < .05, *** \underline{p} < .01

Table 5

<u>Discriminant Analysis Results of the Personal Values Profile: The Corps of Cadets</u>

<u>Versus Southern Illinois University at Carbondale Air Force Reserve Officer Training</u>

<u>Corps (N = 176)</u>

		Predicted Group Membership			
Actual Group	No. of Cases	SIUC AFROTC	Corps of Cadets		
SIUC AFROTC	88	60 (68 %)	28 (28%)		
Corps of Cadets	88	27 (31 %)	61 (69%)		

Note. Grouped cases classified correctly = 68.8%.

Eigenvalue = .1684, p < .05.

Table 6

Analysis of Variance for Member Values: Corps of Cadets Versus Southern Illinois

University at Carbondale Air Force Reserve Officer Training Corps (SIUC AFROTC)

(N = 176)

Source	Corps of Cadets M	SIUC AFROTC M	<u>F</u>
Effort	14.81	14.84	0.00
Time	11.48	12.48	4.26***
Job	12.27	12.74	1.12
Quality	15.07	14.52	2.61*
Affect	11.14	11.58	0.61
Empathy	13.09	12.78	0.41
Sociability	11.86	11.83	0.01
Loyalty	15.78	14.83	3.65**
Dominance	13.80	13.42	0.83
Status	12.61	11.78	4.13***
Political	8.58	9.13	1.90
Leader	13.01	13.36	0.42
Abstract	12.49	12.58	0.03
Plan/Organize	12.39	12.06	0.41
Exposition	11.49	11.28	0.23
Flexibility	10.13	10.78	2.44*

<u>Note.</u> * \underline{p} < .15, ** \underline{p} < .10, *** \underline{p} < .05

Table 7

<u>Discriminant Analysis Results of the Aggregate Values Profile (How My Organization</u>

<u>Is): The Corps of Cadets Organizational Divisions (N = 159)</u>

	-	Predicted Group Membership			
Actual Group	No. of Cases	AS 100	AS 200	AS 300	AS 400
AS 100	40	30 (75%)	8 (20%)	0 (0%)	2 (5%)
AS 200	40	9 (23%)	23 (58%)	4 (10%)	4 (10%)
AS 300	40	1 (2%)	5 (13%)	23 (58%)	11 (27%)
AS 400	39	2 (5%)	3 (8%)	10 (26%)	24 (61%)

Note. Grouped cases classified correctly = 62.9%.

Eigenvalues: 1st function = 1.1702, 2nd function = .2388, 3rd function = .0656.

Cumulative variance explained = 96%, p < .05.

Table 8

<u>Discriminant Analysis Results of the Personal Values Profile: The Corps of Cadets</u>

<u>Organizational Divisions (N = 159)</u>

	-	Predicted Group Membership				
Actual Group	No. of Cases	AS 100	AS 200	AS 300	AS 400	
AS 100	40	18 (45%)	6 (15%)	8 (20%)	8 (20%)	
AS 200	40	9 (23%)	16 (40%)	10 (25%)	5 (12%)	
AS 300	40	6 (15%)	8 (20%)	21 (53%)	5 (12%)	
AS 400	39	10 (26%)	4 (10%)	8 (20%)	17 (44%)	

Note. Grouped cases classified correctly = 45.3%.

Eigenvalues: 1st function = .3729, 2nd function = .1351, 3rd function = .0469.

Cumulative variance explained = 67%, p < .01.

Discriminant Analysis Results of the Aggregate Values Profile (How My Organization

Is): Southern Illinois University at Carbondale Air Force Reserve Officer Training Corps

Organizational Divisions (N = 91)

			Predicted Grou	p Membership	
Actual Group	No. of Cases	AS 100	AS 200	AS 300	AS 400
AS 100	25	14 (56%)	9 (36%)	1 (4%)	1 (4%)
AS 200	34	9 (27%)	22 (64%)	2 (6%)	1 (3%)
AS 300	16	1 (6%)	4 (25%)	9 (56%)	2 (13%)
AS 400	16	4 (25%)	4 (25%)	1 (6%)	7 (44%)

Note. Grouped cases classified correctly = 57.1%.

Eigenvalues: 1st function = .4584, 2nd function = .3031, 3rd function = .1657.

Cumulative variance explained = 49%, p < .05.

Table 10

<u>Discriminant Analysis Results of the Personal Values Profile (How My Organization Is):</u>

<u>Southern Illinois University at Carbondale Air Force Reserve Officer Training Corps</u>

<u>Organizational Divisions (N = 88)</u>

	-		Predicted Grou	p Membership	-
Actual Group	No. of Cases	AS 100	AS 200	AS 300	AS 400
AS 100	24	10 (42%)	10 (42%)	2 (8%)	2 (8%)
AS 200	34	7 (20%)	21 (62%)	2 (6%)	4 (12%)
AS 300	15	2 (13%)	8 (53%)	3 (20%)	2 (14%)
AS 400	15	1 (7%)	8 (53%)	1 (7%)	5 (33%)

Note. Grouped cases classified correctly = 44.3%.

Eigenvalues: 1st function = .2725, 2nd function = .1585, 3rd function = .0656.

Table 11

<u>Summary of Organizational Divisions Regression Analysis for the Corps of Cadets</u>

<u>Aggregate Values Profile Data (How My Organization Is) (N = 159)</u>

Variable	<u>B</u>	<u>SE B</u>	β
Effort	086	.035	226*
Time	172	.035	417**
Job	037	.035	079
Quality	072	.031	182*
Affect	017	.040	035
Empathy	126	.044	283**
Sociability	096	.041	215*
Loyalty	082	.031	257**
Dominance	146	.031	407**
Status	020	.047	047
Political	017	040	064
Leader	042	.033	115
Abstract	128	.035	313**
Plan/Organization	089	.038	186*
Exposition	032	.036	080
Flexibility	058	.038	125

<u>Note.</u> Adj. $\underline{R}^2 = .44$; $\underline{p} < .0001$

^{*}**p** < .05 ****p** < .01

Summary of Organizational Divisions Regression Analysis for Southern Illinois

University at Carbondale Air Force Reserve Officer Training Corps Aggregate Values

Profile Data (How My Organization Is) (N = 91)

Variable	<u>В</u>	SE B	β
Effort	.023	.061	.065
Time	.109	.066	.242
Job	.098	.065	.245
Quality	030	.071	087
Affect	040	.062	100
Empathy	.016	.080	.044
Sociability	.108	.067	.268
Loyalty	.042	.057	.013
Dominance	010	.061	027
Status	.057	.077	.162
Political	.010	.061	.035
Leader	.044	.055	.131
Abstract	.048	.067	.116
Plan/Organization	.030	.060	.073
Exposition	.085	.071	.234
Flexibility	.084	.063	.213

<u>Note.</u> Adj. $\underline{R}^2 = -.001$

Variable	<u>B</u>	SE B	β
To 4	020	020	115
Effort	.038	.038	.115
Time	.117	.040	.332**
Job	.015	.040	.040
Quality	.201	.056	.411***
Affect	.093	.047	.305**
Empathy	.159	.041	.450***
Sociability	.063	.036	.185*
Loyalty	.011	.037	.032
Dominance	.087	.045	.190*
Status	.040	.037	.106
Political	.104	.053	.230**
Leader	.035	.035	.216**
Abstract	011	.037	037
Plan/Organization	.122	.042	.354***
Exposition	.090	.045	.233**
Flexibility	.142	.051	.350***

Note. Adj. $\underline{\mathbf{R}}^2 = .132$; $\underline{\mathbf{p}} < .01$

^{*&}lt;u>p</u> < .10, **<u>p</u> < .05, ***<u>p</u> < .01

Table 14

<u>Summary of Organizational Divisions Regression Analysis for Southern Illinois</u>

<u>University at Carbondale Air Force Reserve Officer Training Corps Personal Values</u>

<u>Profile Data (N = 88)</u>

Variable	<u>B</u>	<u>SE B</u>	β
Effort	.062	.057	.215
Time	017	.048	054
Job	.050	.059	.143
Quality	.080	.063	.178
Affect	.094	.058	.325
Empathy	.013	.059	.004
Sociability	.080	.068	.247
Loyalty	012	.053	042
Dominance	.038	.070	.096
Status	042	.054	112
Political	024	.060	065
Leader	.026	.048	.088
Abstract	041	.050	138
Plan/Organization	.012	.053	.040
Exposition	.034	.053	.084
Flexibility	.131	.059	.372*

<u>Note.</u> Adj. $R^2 = .019$

^{*&}lt;u>p</u> < .05

Table 15

Regression Analysis Mechanistic/Organic Hypothesis Testing Using the Corps of Cadets

and Southern Illinois University at Carbondale Air Force Reserve Officer Training

Corps Aggregate Values Profile Data (N = 461)

Variable	SSE	$\underline{\mathrm{S}}^2$
Complete Model Residual	342.50	.749
Reduced Model Residual	358.77	
		

<u>Note.</u> $\Delta SSE = 10.852, p < .01$

Table 16

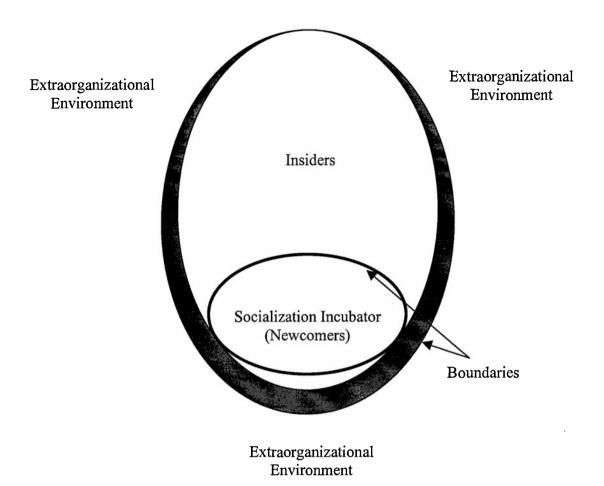
Regression Analysis of Residuals Generated From the Corps of Cadets Personal Values

Profile Multiple Regression Model (N = 159)

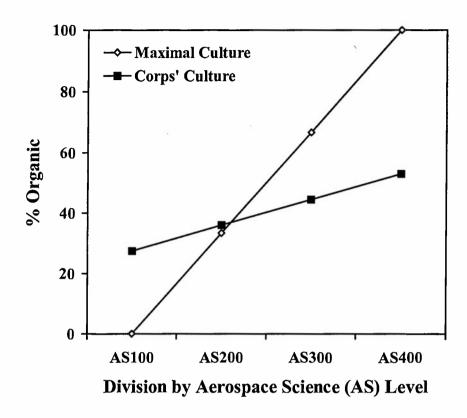
Variable	<u>B</u>	SE B	β
Residuals	1.291	.125	.635*

<u>Note.</u> Adj. $\underline{R}^2 = .399$.

^{*}p < .0001



<u>Figure 1.</u> The organizational "egg." The socialization incubator in clan-like organizations.



<u>Figure 2.</u> Comparison of optimal culture regression function (mechanistic/organic) with the Corps of Cadets' culture regression function (mechanistic/organic).

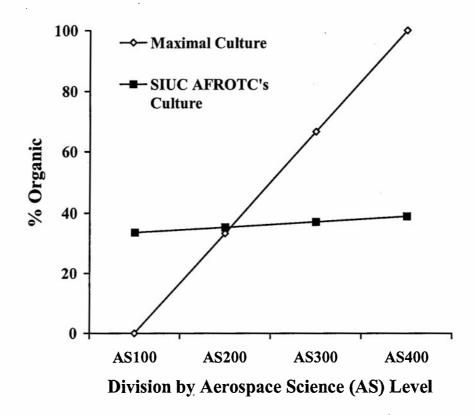
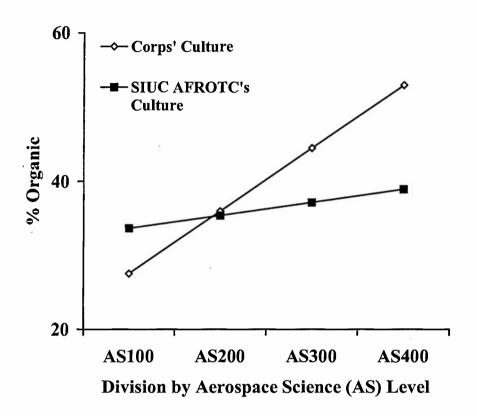


Figure 3. Comparison of optimal culture regression function (mechanistic/organic) with Southern Illinois University at Carbondale Air Force Reserve Officer Training Corps' culture regression function (mechanistic/organic).



<u>Figure 4.</u> Comparison of Corps of Cadets' Culture regression function (mechanistic/organic) with Southern Illinois University at Carbondale Air Force Reserve Officer Training Corps' culture regression function (mechanistic/organic).

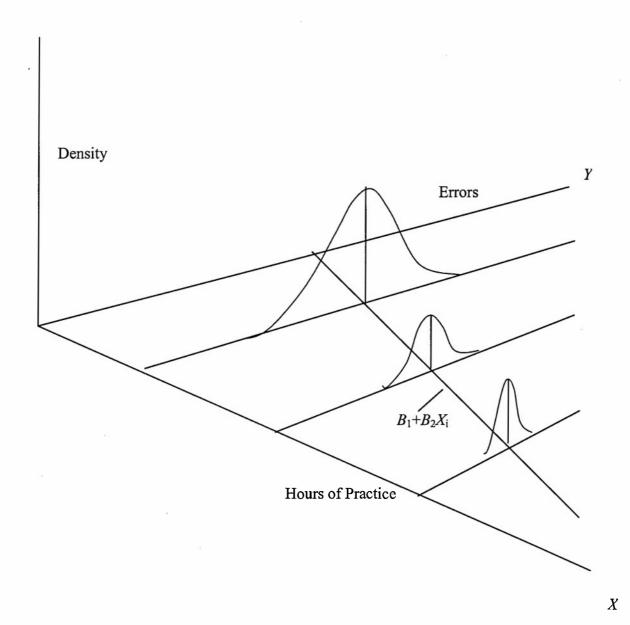
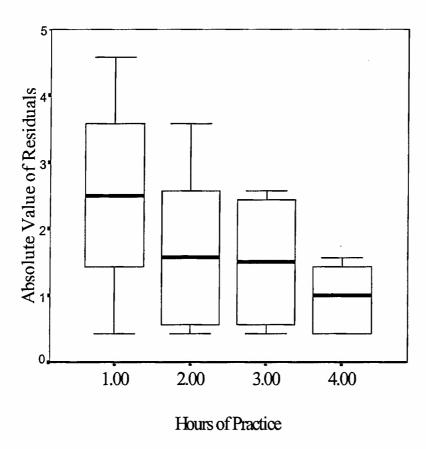
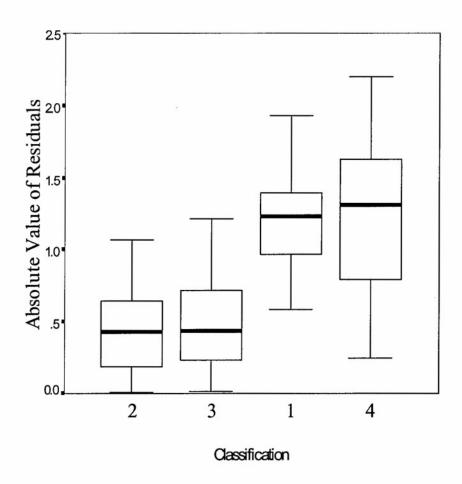


Figure 5. Heterscodastic "error-learning" model.



<u>Figure 6.</u> Boxplot of absolute value of heterscodastic "error-learning" model residuals. Heavy black lines are medians. Boxes are interquartile ranges.



<u>Figure 7.</u> Boxplot of absolute value of residuals generated from Corps of Cadets personal values profile multiple regression model. Heavy black lines are medians. Boxes are interquartile ranges.

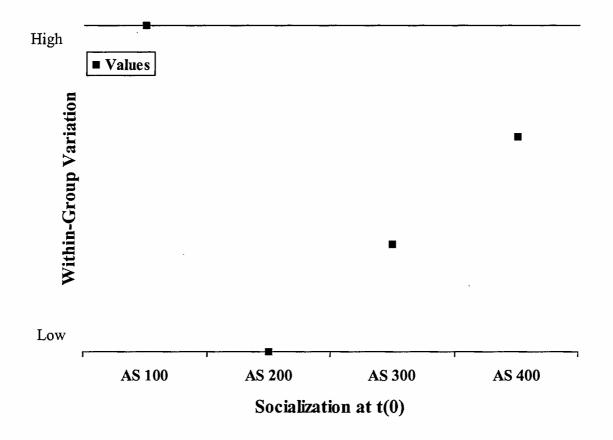
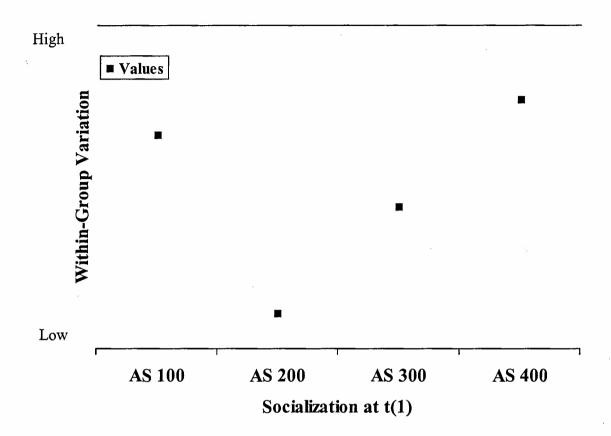


Figure 8. Socialization in the Corps of Cadets at t(0).



 $\underline{Figure~9.}~Socialization~in~the~Corps~of~Cadets~at~t(1).$

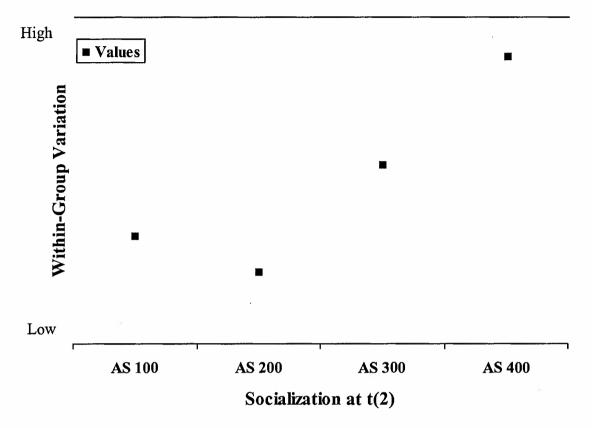


Figure 10. Socialization in the Corps of Cadets at t(2).

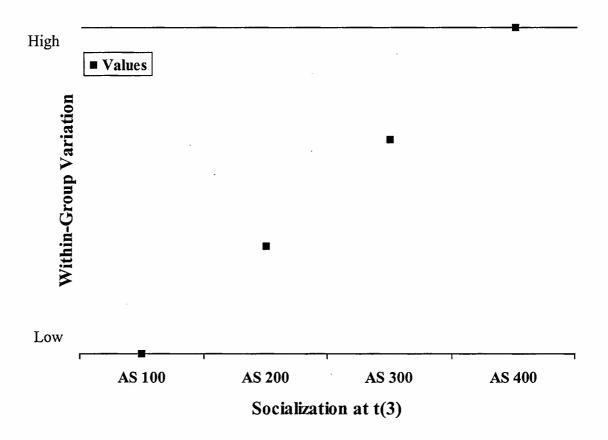


Figure 11. Socialization in the Corps of Cadets at t(3).

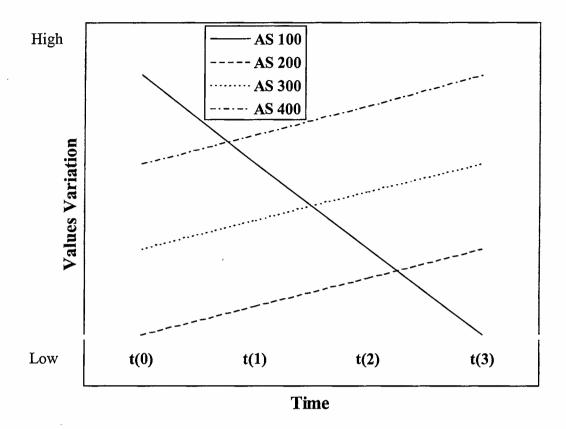


Figure 12. Socialization in the Corps of Cadets.

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VITA

Graduate School Southern Illinois University

[PII Redacted]

Mark A. Ward

Texas A&M University Bachelor of Science Political Science

Air Force Institute of Technology Master of Science in Acquisition Logistics Management

Dissertation Title:

AN ANAYSIS OF SOCIALIZATION INCUBATORS IN SELECTED MILITARY COMMISSIONING INSTITUTIONS

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